

tctgttcagg gcctctgacc ttctttctgc ccccaaccac tggcccagaa gctactgacc
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 cagcaggggg tgggacgtac tccatccctg ggtctatgac tccatgcct tccatctcat
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<210> 2764

<211> 423

<212> PRT

<213> Homo sapiens

<400> 2764

Met	Pro	Pro	Gln	Ala	Leu	Phe	His	Asp	Asp	Asp	Glu	Met	Glu	Gly	Asp
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Gly	Val	Ile	Asp	Pro	Gly	Met	Glu	Tyr	Val	Pro	Pro	Pro	Ala	Gly	Ser
		20					25				30				
Val	Ala	Ser	Gly	Pro	Val	Val	Gly	Arg	Lys	Lys	Val	Arg	Gly	Pro	
		35				40				45					
Glu	Gln	Ile	Lys	Gln	Glu	Val	Glu	Ser	Glu	Glu	Glu	Lys	Pro	Asp	Arg
	50				55					60					
Met	Asp	Ile	Asp	Ser	Glu	Asp	Thr	Asp	Ser	Asn	Thr	Ser	Leu	Gln	Thr
65					70					75				80	
Arg	Ala	Arg	Glu	Lys	Arg	Lys	Pro	Gln	Leu	Glu	Lys	Asp	Thr	Lys	Pro
			85					90					95		
Lys	Glu	Pro	Arg	Tyr	Thr	Pro	Val	Ser	Ile	Tyr	Glu	Glu	Lys	Leu	Leu
		100					105						110		
Leu	Lys	Arg	Leu	Glu	Ala	Cys	Pro	Gly	Ala	Val	Ala	Met	Thr	Pro	Glu
		115					120					125			
Ala	Arg	Arg	Leu	Lys	Arg	Lys	Leu	Ile	Val	Arg	Gln	Ala	Lys	Arg	Asp
		130				135					140				
Arg	Gly	Leu	Pro	Leu	Phe	Asp	Leu	Asp	Gln	Val	Val	Asn	Ala	Ala	Leu
145					150					155				160	
Leu	Leu	Val	Asp	Gly	Ile	Tyr	Gly	Ala	Lys	Glu	Gly	Gly	Ile	Ser	Arg
			165					170						175	
Leu	Pro	Ala	Gly	Gln	Ala	Thr	Tyr	Arg	Thr	Thr	Cys	Gln	Asp	Phe	Arg
		180					185						190		
Ile	Leu	Asp	Arg	Tyr	Gln	Thr	Ser	Leu	Pro	Ser	Arg	Lys	Gly	Phe	Arg
		195					200					205			
His	Gln	Thr	Thr	Lys	Phe	Leu	Tyr	Arg	Leu	Val	Gly	Ser	Glu	Asp	Met
	210					215					220				
Ala	Val	Asp	Gln	Ser	Ile	Val	Ser	Pro	Tyr	Thr	Ser	Arg	Ile	Leu	Lys
225					230					235				240	
Pro	Tyr	Ile	Arg	Arg	Asp	Tyr	Glu	Thr	Lys	Pro	Pro	Lys	Leu	Gln	Leu
			245						250					255	
Leu	Ser	Gln	Ile	Arg	Ser	His	Leu	His	Arg	Ser	Asp	Pro	His	Trp	Thr
		260					265						270		
Pro	Glu	Pro	Asp	Ala	Pro	Leu	Asp	Tyr	Cys	Tyr	Val	Arg	Pro	Asn	His
		275					280					285			
Ile	Pro	Thr	Ile	Asn	Ser	Met	Cys	Gln	Glu	Phe	Phe	Trp	Pro	Gly	Ile
	290					295					300				
Asp	Leu	Ser	Glu	Cys	Leu	Gln	Tyr	Pro	Asp	Phe	Ser	Val	Val	Val	Leu
305					310					315				320	
Tyr	Lys	Lys	Val	Ile	Ile	Ala	Phe	Gly	Phe	Met	Val	Pro	Asp	Val	Lys

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          325          330          335
Tyr Asn Glu Ala Tyr Ile Ser Phe Leu Phe Val His Pro Glu Trp Arg
          340          345          350
Arg Ala Gly Ile Ala Thr Phe Met Ile Tyr His Leu Ile Gln Thr Cys
          355          360          365
Met Gly Lys Asp Val Thr Leu His Val Ser Ala Ser Asn Pro Ala Met
          370          375          380
Leu Leu Tyr Gln Lys Phe Gly Phe Lys Thr Glu Glu Tyr Val Leu Asp
385          390          395          400
Phe Tyr Asp Lys Tyr Tyr Pro Leu Glu Ser Thr Glu Cys Lys His Ala
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Phe Phe Leu Arg Leu Arg Arg
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<210> 2765
 <211> 582
 <212> DNA
 <213> Homo sapiens

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<400> 2765
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120
agtggagggg caggatggca cggccacttg gggcttgggg gcgctccggc tgccgtaccg
180
tggtgcaag cctaaaccgg gcttggggccc atcctgagca gccaggggtt tgttcagctc
240
ccggcttctg gccactcggc atcgccagag tctccaggcc agcacagggc cagcgatggc
300
aagtccaaga agcaggcacc cgctgaccac cactgccccg atagttgcag aggccaggcc
360
aggggagcag ctgacctcca ggaaggcaga gaggttgtgc tgggagctgg ttgtgtccca
420
gcagagcaga ggcttctggc cagagcagtt gtctcggcgg atgtcgtgcc aggactccag
480
ggcacagttg cagtcggcct gcaggtcaag gtcacagcgg gcggccagcg ccccatccac
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acgagacaag gggttgcgta gcacgttcag gacctcaagc tt
582

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<210> 2766
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 2766
Met Gly Arg Trp Pro Pro Ala Val Thr Leu Thr Cys Arg Pro Thr Ala
1      5      10      15
Thr Val Pro Trp Ser Pro Gly Thr Thr Ser Ala Glu Thr Thr Ala Leu
20     25     30
Ala Arg Ser Leu Cys Ser Ala Gly Thr Gln Pro Ala Pro Ser Thr Thr
35     40     45
Ser Leu Pro Ser Trp Arg Ser Ala Ala Pro Leu Ala Trp Pro Leu Gln

```



```

      50              55              60
Leu Ser Gly Gln Trp Trp Ser Ala Gly Ala Cys Phe Leu Asp Leu Pro
65              70              75              80
Ser Leu Ala Leu Cys Trp Pro Gly Asp Ser Gly Asp Ala Glu Trp Pro
      85              90              95
Glu Ala Gly Ser
      100

<210> 2767
<211> 1202
<212> DNA
<213> Homo sapiens

<400> 2767
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atcatttctg atgactccct ggagcacact gacagttcag atgtgtcgac cctgcagaat
120
gactcagcct acgacagcaa cgaccctgat gtggaatcca acagcagcag tggcatcagc
180
tctcccagca ggcagcccca ggtgcccatt gccacagctg ctggcttggg tagcgcgggc
240
ccacaggatg cccgagaggt cagcccagag cccattgtga gcaccgtggc caggctgaaa
300
agctccctcg cacagcccga taggagatac tcagagccca gcatgccatc ctcccaggag
360
tgcctcgaga gccgggtgac aaaccaaaca ctaacaaaga gtgaagggga cttccccgtg
420
ccccgggtag gctctcgttt ggaaagtgag gaggtgaag acccatttcc agaggaggtc
480
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540
ccgggttcgg tgctcccgcg ggcactggtt ctcaaagcct tctccagcag ctcgctggac
600
gcgtcctctg acagctcgcc cgtggcttct ccttccagtc ccaaaagaaa tttcttcagc
660
agacatcagt ctttcaccac aaagacagag aaaggcaagc ccagccgaga aattaaag
720
cactccatgt ctttcacctt tgcccctcac aaaaaagtgc tgaccaaaaa cctcagcgcg
780
ggctctggga aatcgcaaga ctttaccagg gaccacgtcc cgaggggtgt cagaaaggaa
840
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900
cgcggcttct gcctgagacc ccacgccctc tcggtggatg atgtgttcca gggagctgac
960
tgaggagaggc ctggaagccc accctcttat gaagaggcca tgcagggccc ggcagccaga
1020
ctagtggcct cccagcaatt tcaatttcta gcttgacact aaaatggtta tttttcagta
1080
acgggggggag aagtgggggag gcagagtgtg aagggaata aaaccaatta gtaattttta
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1200

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ag
1202

<210> 2768
<211> 282
<212> PRT
<213> Homo sapiens

<400> 2768
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20 25 30
Ser Leu Ala Gln Pro Asp Arg Arg Tyr Ser Glu Pro Ser Met Pro Ser
35 40 45
Ser Gln Glu Cys Leu Glu Ser Arg Val Thr Asn Gln Thr Leu Thr Lys
50 55 60
Ser Glu Gly Asp Phe Pro Val Pro Arg Val Gly Ser Arg Leu Glu Ser
65 70 75 80
Glu Glu Ala Glu Asp Pro Phe Pro Glu Glu Val Phe Pro Ala Val Gln
85 90 95
Gly Lys Thr Lys Arg Pro Val Asp Leu Lys Ile Lys Asn Leu Ala Pro
100 105 110
Gly Ser Val Leu Pro Arg Ala Leu Val Leu Lys Ala Phe Ser Ser Ser
115 120 125
Ser Leu Asp Ala Ser Ser Asp Ser Ser Pro Val Ala Ser Pro Ser Ser
130 135 140
Pro Lys Arg Asn Phe Phe Ser Arg His Gln Ser Phe Thr Thr Lys Thr
145 150 155 160
Glu Lys Gly Lys Pro Ser Arg Glu Ile Lys Lys His Ser Met Ser Phe
165 170 175
Thr Phe Ala Pro His Lys Lys Val Leu Thr Lys Asn Leu Ser Ala Gly
180 185 190
Ser Gly Lys Ser Gln Asp Phe Thr Arg Asp His Val Pro Arg Gly Val
195 200 205
Arg Lys Glu Ser Gln Leu Ala Gly Arg Ile Val Gln Glu Asn Gly Cys
210 215 220
Glu Thr His Asn Gln Thr Ala Arg Gly Phe Cys Leu Arg Pro His Ala
225 230 235 240
Leu Ser Val Asp Asp Val Phe Gln Gly Ala Asp Trp Glu Arg Pro Gly
245 250 255
Ser Pro Pro Ser Tyr Glu Glu Ala Met Gln Gly Pro Ala Ala Arg Leu
260 265 270
Val Ala Ser Gln Gln Phe Gln Phe Leu Ala
275 280

<210> 2769
<211> 1286
<212> DNA
<213> Homo sapiens

<400> 2769
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 120
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 180
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 240
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 300
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 420
 gtcaagtact actgccagaa cttcgcccc aacttcaagg agagcgagat gaatgccatc
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 540
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 720
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 780
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 900
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 960
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 1020
 cccctcccca ggccnaggc cacctcgcgg aagccttcag cctccgccc tcaactgcagc
 1080
 cccttgggac ttgagggggg cccaggggt tctcaggacc cctccacca cctccagtg
 1140
 cttccacgtc tccaaaagcg ccttctgtc accctcgtct atccctgcgc ctgggggctg
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 1286

<210> 2770

<211> 228

<212> PRT

<213> Homo sapiens

<400> 2770

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 20 25 30
 Asn Arg Ile Arg Val Arg Gln Asp Leu Ala Ser Leu Pro Ala Glu Leu

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      35              40              45
Ile Asn Gln Ile Gly Asn Arg Cys His Pro Lys Leu Tyr Asp Glu Gly
      50              55              60
Asp Pro Ser Glu Lys Leu Glu Leu Val Thr Gly Thr Asn Val Tyr Ile
65      70              75              80
Thr Arg Ala Gln Leu Met Asn Cys His Val Ser Ala Gly Thr Arg His
      85              90              95
Lys Val Leu Leu Arg Arg Leu Leu Ala Ser Phe Phe Asp Arg Asn Thr
      100             105             110
Leu Ala Asn Ser Cys Gly Thr Gly Ile Arg Ser Ser Thr Asn Asp Pro
      115             120             125
Arg Arg Lys Pro Leu Asp Ser Arg Val Leu His Ala Val Lys Tyr Tyr
      130             135             140
Cys Gln Asn Phe Ala Pro Asn Phe Lys Glu Ser Glu Met Asn Ala Ile
145      150             155             160
Ala Ala Asp Met Cys Thr Asn Ala Arg Arg Val Val Arg Lys Ser Trp
      165             170             175
Met Pro Lys Val Lys Val Leu Lys Ala Glu Asp Asp Ala Tyr Thr Thr
      180             185             190
Phe Ile Ser Glu Thr Gly Lys Ile Glu Pro Asp Met Met Gly Val Glu
      195             200             205
His Gly Phe Glu Thr Ala Ser His Glu Gly Glu Ala Gly Pro Ile Ala
      210             215             220
Glu Ala Leu Gln
225

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<210> 2771

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 2771

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120
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180
aagctggcag agatgttctc tagcttagcc aaggcctcca cggacgcgga gggccgcttc
240
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300
gtgcccacac agcacatccc tgaagtgtac cgtgaggctc agttctacga aatcaagcct
360
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420
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480
gcagaagcca taacagcacg gaagtccagc gtgcttgtgt gcctggtgga aactgaggag
540
caggatgcat attattcaga ggtcctgtgt tttctgcagg ataagaagat gttcaagtct
600
gttgtcaagt ttgggcccctg gaaggcggtc ctagacaaca gcgacctcat gcactgcctg
660

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 780
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 900
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 960
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 1020
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 1080
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 1200
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 1440
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 1560
 gcacattctt actcagtttt tttctctgt cctacgtgc ttcctcact ccccttctcc
 1620
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 1668

<210> 2772

<211> 258

<212> PRT

<213> Homo sapiens

<400> 2772

Val	Ile	Cys	Met	Trp	Gln	Gly	Cys	Ala	Val	Glu	Arg	Pro	Val	Gly	Arg
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Met	Thr	Ser	Gln	Thr	Pro	Leu	Pro	Gln	Ser	Pro	Arg	Pro	Arg	Arg	Pro
			20					25					30		
Thr	Met	Ser	Thr	Val	Val	Glu	Leu	Asn	Val	Gly	Gly	Glu	Phe	His	Thr
			35				40					45			
Thr	Thr	Leu	Gly	Thr	Leu	Arg	Lys	Phe	Pro	Gly	Ser	Lys	Leu	Ala	Glu
	50				55					60					
Met	Phe	Ser	Ser	Leu	Ala	Lys	Ala	Ser	Thr	Asp	Ala	Glu	Gly	Arg	Phe
65				70					75					80	
Phe	Ile	Asp	Arg	Pro	Ser	Thr	Tyr	Phe	Arg	Pro	Ile	Leu	Asp	Tyr	Leu
			85				90					95			
Arg	Thr	Gly	Gln	Val	Pro	Thr	Gln	His	Ile	Pro	Glu	Val	Tyr	Arg	Glu

[illegible]

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<210> 2773
<211> 593
<212> DNA
<213> Homo sapiens
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<400> 2773
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120
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180
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360
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420
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480
gattagcttc ttgagagcag gaaccacatt cattctttgt gtctgcctg tgactatcca
540
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593
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<210> 2774
<211> 157
<212> PRT
<213> Homo sapiens
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<400> 2774

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 20 25 30
 Glu Asp Ala Glu Glu Ser Leu Glu Glu Glu Glu Ala Leu Asp Pro Leu
 35 40 45
 Gly Ile Met Arg Ser Lys Lys Pro Lys Lys His Pro Lys Val Ala Val
 50 55 60
 Lys Ala Lys Pro Ser Pro Arg Leu Thr Ile Phe Asp Glu Glu Val Asp
 65 70 75 80
 Pro Asp Glu Gly Leu Phe Gly Pro Gly Arg Lys Leu Ser Pro Gln Asp
 85 90 95
 Pro Ser Glu Asp Val Ser Ser Met Asp Pro Leu Lys Leu Phe Asp Asp
 100 105 110
 Pro Asp Leu Gly Gly Ala Ile Pro Leu Gly Asp Ser Leu Leu Leu Pro
 115 120 125
 Ala Ala Cys Glu Ser Gly Gly Pro Thr Pro Ser Leu Ser His Arg Asp
 130 135 140
 Ala Ser Lys Glu Leu Phe Arg Gln Ile Gln Lys Glu Pro
 145 150 155

<210> 2775

<211> 3139

<212> DNA

<213> Homo sapiens

<400> 2775

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 120
 gcggcgagac atgaggagac cccgcgacag gggcagcggc ggcggctcgt gagccccggg
 180
 atggaggaga aatacggcgg ggacgtgctg gccggccccc gcggcggcgg cggccttggg
 240
 ccggtggacg taccagcgc tcgattaaca aaatatattg tggtactatg tttactaaa
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 420
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 480
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 600
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 660
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 780

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1860
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1920
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1980
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<213> Homo sapiens

<400> 2780

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			420					425					430							
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Phe His Phe His Thr Arg Ser Asp Val Arg Leu Tyr Gly Met Ile Tyr		685
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<211> 1268

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<213> Homo sapiens

<400> 2781

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Tyr	Glu	Ala	Leu	His	Gly	Pro	Pro	Lys	Lys	Ile	Leu	Val	Glu	Gly	Ala
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<211> 361

<212> PRT

<213> Homo sapiens

<400> 2784

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<400> 2786
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 <213> Homo sapiens

<400> 2787
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 120
 acaatgcaca gacatggcag tatccttctg gtgggagggg gtcaccattt gctctgcctt
 180
 gccctctgct ggggtgctctt acaggtgcta ctgcatccag cgcttgaaac aattctgtgg
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 299

<210> 2788
 <211> 95
 <212> PRT

<213> Homo sapiens

<400> 2788

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          20           25           30
Ala Gly His Ala Thr Met His Arg His Gly Ser Ile Leu Leu Val Gly
          35           40           45
Gly Ser His His Leu Leu Cys Pro Ala Leu Cys Trp Val Leu Leu Gln
          50           55           60
Val Leu Leu His Pro Ala Leu Glu Thr Ile Leu Trp Gly Ile Asp Ser
65           70           75           80
Glu Glu Ile Thr Asp Gly Arg Asp Phe Leu Pro Gln Leu Thr Gln
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<210> 2789

<211> 492

<212> DNA

<213> Homo sapiens

<400> 2789

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120
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240
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<210> 2790

<211> 141

<212> PRT

<213> Homo sapiens

<400> 2790

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Arg Lys Ser Ala Arg Ser Gly Ser Arg Cys Gly Arg Ala Ala Gly Arg
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Ser Ala Pro Gly Gly Cys Arg Gly Pro Gly Ala His Ala Pro Val Pro
          20           25           30
Ala Arg Pro Gly Cys Ala Val Gly Pro Ala Pro Ala Ala Ser Pro
          35           40           45
Pro Ala Gly Pro Pro Trp Thr Ala Ala Ser Ala Leu Leu Pro Ser Leu

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50	55	60
His Cys Pro Leu Leu Arg Ala Glu Pro Gly Ala Gly Ser Arg Pro Ala		
65	70	75
Gly Ser Pro Pro Thr Pro Pro Gly Leu Pro Pro Val Pro Arg Glu Arg		80
	85	90
Gln Ser Gln Lys Thr Gln Ala Gln Ala Ser Ala Thr Pro Ala Ala Cys		95
	100	105
Leu Ala Leu Ala Arg Gly Leu Arg Leu Cys Arg Leu Ser Thr Ser Gly		110
	115	120
Arg Val Ala Leu Arg Arg Gly Ser Gly Ser Arg Pro Arg		125
130	135	140

<210> 2791

<211> 1271

<212> DNA

<213> Homo sapiens

<400> 2791

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ccaaattccc atttttcttc caatcacatt taaaatttca atatgttgca ggcagtatgt
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gtaagattat atccaaatat ttactcctgg ttgctcctct tgggcaagct gtgaatatga
240
tcaaaatatt taaagaagga agaaggtaaa gatctaaaat atgacatgaa aatacccaga
300
gaagtgtgcc taaattagca ttagggtttg agggatccta aggatgacaa aaagggactc
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480
ggtgtggcca gaagaccctt tcccctatag accactatga gccctgaaag atttatgagg
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taatgttcac ttcactcctgt gcttcttttc ctagatgtga actatgaaga ctttactttc
600
accataccag atgtagagga ctcaagtcag agaccagatc agggacccca gagacctcct
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cctgaaggac tcctacctag accccctggt gatagtggta accaagatga tggtcctcag
720
cagagaccac caaaaccagg aggccatcac cgccatcctc cccacacctc ttttcaaaat
780
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840
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900
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960
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1020
attaatagca tgcggaagaa agaatggttt gcatccacat ggagagtgtg ccatttagag
1080

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<210> 2792

<211> 123

<212> PRT

<213> Homo sapiens

<400> 2792

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Phe	Thr	Phe	Thr	Ile	Pro	Asp	Val	Glu	Asp	Ser	Ser	Gln	Arg	Pro	Asp
			20					25					30		
Gln	Gly	Pro	Gln	Arg	Pro	Pro	Pro	Glu	Gly	Leu	Leu	Pro	Arg	Pro	Pro
		35					40					45			
Gly	Asp	Ser	Gly	Asn	Gln	Asp	Asp	Gly	Pro	Gln	Gln	Arg	Pro	Pro	Lys
	50					55					60				
Pro	Gly	Gly	His	His	Arg	His	Pro	Pro	Pro	Pro	Pro	Phe	Gln	Asn	Gln
65					70					75				80	
Gln	Arg	Pro	Pro	Gln	Arg	Gly	His	Arg	Gln	Leu	Ser	Leu	Pro	Arg	Phe
				85				90						95	
Pro	Ser	Val	Ser	Leu	Gln	Glu	Ala	Ser	Ser	Phe	Phe	Arg	Arg	Asp	Arg
		100					105						110		
Pro	Ala	Arg	His	Pro	Gln	Glu	Gln	Pro	Leu	Trp					
		115					120								

<210> 2793

<211> 847

<212> DNA

<213> Homo sapiens

<400> 2793

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 120
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 180
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 240
 gaggcgccag aggagccgcc ttctgcctca gaacggcggtg actcggagaa ttggagcggt
 300
 attcagtata ttaatgtett attgataatg gcagaacatc caccactact ggatacaact
 360
 cagatcttaa gtagtgatat ttctcttttg tctgccccta ttgtaagtgc agatggaaca
 420
 caacagggtta ttctggtaca agttaaccca ggagaagcat ttacaataag aagagaagat
 480

ggacagtttc agtgcattac aggtcctgct caggttccaa tgatgtcccc aaatggttct
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 660
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 720
 caccacgtca tatgtactca cccgtgactg gagctggaga catgacaaca cagtatatgc
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 847

<210> 2794

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2794

Met	Ala	Glu	His	Pro	Pro	Leu	Leu	Asp	Thr	Thr	Gln	Ile	Leu	Ser	Ser
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Asp	Ile	Ser	Leu	Leu	Ser	Ala	Pro	Ile	Val	Ser	Ala	Asp	Gly	Thr	Gln
			20					25					30		
Gln	Val	Ile	Leu	Val	Gln	Val	Asn	Pro	Gly	Glu	Ala	Phe	Thr	Ile	Arg
		35				40					45				
Arg	Glu	Asp	Gly	Gln	Phe	Gln	Cys	Ile	Thr	Gly	Pro	Ala	Gln	Val	Pro
	50					55				60					
Met	Met	Ser	Pro	Asn	Gly	Ser	Val	Pro	Pro	Ile	Tyr	Val	Pro	Pro	Gly
65					70					75				80	
Tyr	Ala	Pro	Gln	Val	Ile	Glu	Asp	Asn	Gly	Val	Arg	Arg	Val	Val	Val
			85						90					95	
Val	Pro	Gln	Ala	Pro	Glu	Phe	His	Pro	Gly	Ser	His	Thr	Val	Leu	His
			100						105					110	
Arg	Ser	Pro	His	Pro	Pro	Leu	Pro	Gly	Phe	Ile	Pro	Val	Pro	Thr	Met
		115				120						125			
Met	Pro	Pro	His	His	Val	Ile	Cys	Thr	His	Pro					
		130				135									

<210> 2795

<211> 1022

<212> DNA

<213> Homo sapiens

<400> 2795

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 120
 gcctggcagc tgctggttgt ggaatagttc tggatgccaa tctcctccag gctcctgcgg
 180
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 240

gtcattgagaa ggtgctgctc cttctcgctg ggcttgctca gagagatgtg ccaggcccca
 300
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 360
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 720
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 780
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 900
 gaaaagtcac ggacctgagg cttggcttct tcttgggatc cattcacagg gagcagctcc
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 1020
 gt
 1022

<210> 2796
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 2796
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 Pro Lys Val Ala Glu Glu Gly Val Ser Ser Met Ser Pro Gly Ala Ser
 20 25 30
 Gly Glu Glu Ala Glu Val Leu Glu Pro Arg Gly Ser Ser Ser Gly Cys
 35 40 45
 Ser Ala Pro Leu Gly Ala Val Val
 50 55

<210> 2797
 <211> 475
 <212> DNA
 <213> Homo sapiens

<400> 2797
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 120

ctgaactcca tcagcgagtc cccgcatgag cgcattgcacc cctacatcga gctggcctgg
 180
 ggcttctcca ccgtgcttgg catcctactc ttcctggccg aggtgggtgct gctctgctgg
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 300
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 360
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<210> 2798

<211> 158

<212> PRT

<213> Homo sapiens

<400> 2798

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Val	His	Leu	Phe	Ala	Leu	Leu	Ile	Ser	Thr	Cys	Ile	Leu	Pro	Asn	Val
		20						25					30		
Glu	Ala	Val	Ser	Asn	Ile	His	Asn	Leu	Asn	Ser	Ile	Ser	Glu	Ser	Pro
	35					40						45			
His	Glu	Arg	Met	His	Pro	Tyr	Ile	Glu	Leu	Ala	Trp	Gly	Phe	Ser	Thr
	50				55					60					
Val	Leu	Gly	Ile	Leu	Leu	Phe	Leu	Ala	Glu	Val	Val	Leu	Leu	Cys	Trp
65				70					75					80	
Ile	Lys	Phe	Leu	Pro	Val	Asp	Ala	Arg	Arg	Gln	Pro	Gly	Pro	Pro	Pro
			85					90						95	
Gly	Pro	Gly	Ser	His	Thr	Gly	Trp	Gln	Ala	Ala	Leu	Val	Ser	Thr	Ile
		100					105						110		
Ile	Met	Val	Pro	Val	Gly	Leu	Ile	Phe	Val	Val	Phe	Thr	Ile	His	Phe
	115				120						125				
Tyr	Arg	Ser	Leu	Val	Arg	His	Lys	Thr	Glu	Arg	His	Asn	Arg	Glu	Ile
	130				135						140				
Glu	Glu	Leu	His	Lys	Leu	Lys	Val	Gln	Leu	Asp	Gly	His	Glu		
145					150						155				

<210> 2799

<211> 2872

<212> DNA

<213> Homo sapiens

<400> 2799

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 120
 gggcagccct tgagcttgac tcctctgggg ccagtctcta tcagaaaatg cctgaccagc
 180
 tcatgggtca tgtctccttt ttattctgc tgcattgatg ttggaggtgg cgaagacacc
 240

ttcatggcca gcccgtacaa gctgagatc tccagggagc aggccatcgc gctcctcaag
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360
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720
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<210> 2800

<211> 294

<212> PRT

<213> Homo sapiens

<400> 2800

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Thr	Phe	Met	Ala	Ser	Pro	Tyr	Lys	Pro	Glu	Ile	Ser	Arg	Glu	Gln	Ala
			20					25					30		
Ile	Ala	Leu	Leu	Lys	Asp	Gln	Glu	Pro	Gly	Ala	Phe	Ile	Ile	Arg	Asp
			35					40					45		
Ser	His	Ser	Phe	Arg	Gly	Ala	Tyr	Gly	Leu	Ala	Met	Lys	Val	Ser	Ser
	50					55					60				
Pro	Pro	Pro	Thr	Ile	Met	Gln	Gln	Asn	Lys	Lys	Gly	Asp	Met	Thr	His
65				70						75				80	
Glu	Leu	Val	Arg	His	Phe	Leu	Ile	Glu	Thr	Gly	Pro	Arg	Gly	Val	Lys
				85						90				95	
Leu	Lys	Gly	Cys	Pro	Asn	Glu	Pro	Asn	Phe	Gly	Ser	Leu	Ser	Ala	Leu

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      100      105      110
Val Tyr Gln His Ser Ile Ile Pro Leu Ala Leu Pro Cys Lys Leu Val
      115      120      125
Ile Pro Asn Arg Asp Pro Thr Asp Glu Ser Lys Asp Ser Ser Gly Pro
      130      135      140
Ala Asn Ser Thr Ala Asp Leu Leu Lys Gln Gly Ala Ala Cys Asn Val
      145      150      155      160
Leu Phe Ile Asn Ser Val Asp Met Glu Ser Leu Thr Gly Pro Gln Ala
      165      170      175
Ile Ser Lys Ala Thr Ser Glu Thr Leu Ala Ala Asp Pro Thr Pro Ala
      180      185      190
Ala Thr Ile Val His Phe Lys Val Ser Ala Gln Gly Ile Thr Leu Thr
      195      200      205
Asp Asn Gln Arg Lys Leu Phe Phe Arg Arg His Tyr Pro Leu Asn Thr
      210      215      220
Val Thr Phe Cys Asp Leu Asp Pro Gln Glu Arg Lys Trp Met Lys Thr
      225      230      235      240
Glu Gly Gly Ala Pro Ala Lys Leu Phe Gly Phe Val Ala Arg Lys Gln
      245      250      255
Gly Ser Thr Thr Asp Asn Ala Cys His Leu Phe Ala Glu Leu Asp Pro
      260      265      270
Asn Gln Pro Ala Ser Ala Ile Val Asn Phe Val Ser Lys Val Met Leu
      275      280      285
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<210> 2801

<211> 549

<212> DNA

<213> Homo sapiens

<400> 2801

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cctccaccca ttgtacagga caaagtgtt gctctgatcc aggcattggc tgatgccttt
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<210> 2802

<211> 151
 <212> PRT
 <213> Homo sapiens

<400> 2802
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 Asn Met Glu Ile Cys Asp Ile Ile Asn Glu Thr Glu Glu Gly Pro Lys
 35 40 45
 Asp Ala Ile Arg Ala Leu Lys Lys Arg Leu Asn Gly Asn Arg Asn Tyr
 50 55 60
 Arg Glu Val Met Leu Ala Leu Thr Val Leu Glu Thr Cys Val Lys Asn
 65 70 75 80
 Cys Gly His Arg Phe His Ile Leu Val Ala Asn Arg Asp Phe Ile Asp
 85 90 95
 Ser Val Leu Val Lys Ile Ile Ser Pro Lys Asn Asn Pro Pro Thr Ile
 100 105 110
 Val Gln Asp Lys Val Leu Ala Leu Ile Gln Ala Trp Ala Asp Ala Phe
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 Arg Ser Ser Pro Asp Leu Thr Gly Val Val His Ile Tyr Glu Glu Leu
 130 135 140
 Lys Arg Lys Gly Val Glu Phe
 145 150

<210> 2803
 <211> 459
 <212> DNA
 <213> Homo sapiens

<400> 2803
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 120
 ccgccagccg tagggtgtgt gctgtccggg ctcacgggga cctgtctcct gagtcgttcg
 180
 tgcagcgtgt gtaccagccc ttcctcacca cctgcgacgg gcaccgggccc tgcagcacct
 240
 accgcaatat gccagccgcc atgccggaac ggaggagct gtgtccagcc tggccgctgc
 300
 cgctgccctg caggatggcg ggggtgacct tgccagtcag atgtggacna gtgcaatgaa
 360
 ggaagaagtg cagaggctgc agtccagggt ggacctgctg gaggagaagc tgcagctggg
 420
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 459

<210> 2804
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 2804

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Gly Arg His Arg Trp Pro Pro Pro Pro Gly Gly Ala Ala Pro Ala Pro
          20           25           30
Val Arg Gly Met Thr Asp Ser Pro Pro Pro Ala Val Gly Cys Val Leu
          35           40           45
Ser Gly Leu Thr Gly Thr Leu Ser Pro Ser Arg Ser Cys Ser Val Cys
          50           55           60
Thr Ser Pro Ser Ser Pro Pro Ala Thr Gly Thr Gly Pro Ala Ala Pro
          65           70           75           80
Thr Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln
          85           90           95
Pro Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln
          100          105          110
Ser Asp Val Asp Xaa Cys Asn Glu Gly Arg Ser Ala Glu Ala Ala Val
          115          120          125
Gln Gly Gly Pro Ala Gly Gly Glu Ala Ala Ala Gly Thr Gly Pro Thr
          130          135          140
Ala Gln Pro Gly Leu Ala Gly Thr Gly
          145          150

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<210> 2805

<211> 771

<212> DNA

<213> Homo sapiens

<400> 2805

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240
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gataatgtgc accatccaag tttatttgtg gcattttatg actaccaagc ataccagag
540
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tgtacatatc tagttgtaaa acaagtttta gctttttttt ttaattcctc ttaacagatt
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771

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<210> 2806
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 2806
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 20 25 30
 Lys Ile Glu Arg Ile Gln Asn Pro Asp Leu Trp Asn Ser Tyr Gln Ala
 35 40 45
 Lys Lys Lys Thr Met Asp Ala Lys Asn Gly Gln Thr Met Asn Glu Lys
 50 55 60
 Gln Leu Phe His Gly Thr Asp Ala Gly Ser Val Pro His Val Asn Arg
 65 70 75 80
 Asn Gly Phe Asn Arg Ser Tyr Ala Gly Lys Asn Ala Val Ala Tyr Gly
 85 90 95
 Lys Gly Thr Tyr Phe Ala Val Asn Ala Asn Tyr Ser Ala Asn Asp Thr
 100 105 110
 Tyr Ser Arg Pro Asp Ala Asn Gly Arg Lys His Val Tyr Tyr Val Arg
 115 120 125
 Val Leu Thr Gly Ile Tyr Thr His Gly Asn His Ser Leu Ile Val Pro
 130 135 140
 Pro Ser Lys Asn Pro Gln Asn Pro Thr Asp Leu Tyr Asp Thr Val Thr
 145 150 155 160
 Asp Asn Val His His Pro Ser Leu Phe Val Ala Phe Tyr Asp Tyr Gln
 165 170 175
 Ala Tyr Pro Glu Tyr Leu Ile Thr Phe Arg Lys
 180 185

<210> 2807
 <211> 1660
 <212> DNA
 <213> Homo sapiens

<400> 2807
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 180
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 240
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 300
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 360
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 420
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 480

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 540
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 600
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 660
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 780
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 840
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 900
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 960
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 1020
 aacgctgatg gtggtctcag ggggaaaact caggacctgc acataagtgg atgaccggaa
 1080
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 1140
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 1200
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 1660

<210> 2808

<211> 390

<212> PRT

<213> Homo sapiens

<400> 2808

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Glu	Leu	Ala	Gly	Cys	Ala	Ser	Cys	Leu	Thr	Val	Gln	Asp	Asn	Trp	Thr
			20					25					30		
Leu	Glu	Leu	Glu	Ser	Ser	Gln	Asp	Ile	Gln	Asp	Val	Leu	Asp	Ala	Asn
			35				40					45			
Lys	Ser	Leu	Pro	Glu	Ser	Ser	Leu	Thr	Asp	Leu	Leu	Ser	Asp	Asn	Phe

50	55	60
Thr Asp Ser Leu Val	Ser Phe Ser Ala Glu Ile Leu Ser Arg Thr Leu	
65	70	75
Cys Glu Pro Leu Val	Ala Ser Leu Trp Met Lys Leu Gly Asn Thr Gly	80
	85	90
Ala Met Arg Arg Cys Val Lys Leu Thr Val Ala Leu Glu Thr Ala Glu		95
	100	105
Cys Glu Phe Pro Pro His Leu Asp Val Tyr Ile Glu Asp Pro His Leu		110
	115	120
Pro Pro Ser Leu Gly Leu Leu Pro Gly Ala Arg Val His Phe Ser Gln		125
	130	135
Leu Glu Lys Arg Val Ser Arg Ser His Asn Val Tyr Cys Cys Phe Arg		140
	145	150
Ser Ser Thr Tyr Val Gln Val Leu Ser Phe Pro Pro Glu Thr Thr Ile		155
	160	165
Ser Val Pro Leu Pro His Ile Tyr Leu Ala Glu Leu Leu Gln Gly Gly		170
	175	180
Gln Ser Pro Phe Gln Ala Thr Ala Ser Cys His Ile Val Ser Val Phe		185
	190	195
Ser Leu Gln Leu Phe Trp Val Cys Ala Tyr Cys Thr Ser Ile Cys Arg		200
	205	210
Gln Gly Lys Cys Thr Arg Leu Gly Ser Thr Cys Pro Thr Gln Thr Ala		215
	220	225
Ile Ser Gln Ala Ile Ile Arg Leu Leu Val Glu Asp Gly Thr Ala Glu		230
	235	240
Ala Val Val Thr Cys Arg Asn His His Val Ala Ala Ala Leu Gly Leu		245
	250	255
Cys Pro Arg Glu Trp Ala Ser Leu Leu Asp Phe Val Gln Val Pro Gly		260
	265	270
Arg Val Val Leu Gln Phe Ala Gly Pro Gly Ala Gln Leu Glu Ser Ser		275
	280	285
Ala Arg Val Asp Glu Pro Met Thr Met Phe Leu Trp Thr Leu Cys Thr		290
	295	300
Ser Pro Ser Val Leu Arg Pro Ile Val Leu Ser Phe Glu Leu Glu Arg		305
	310	315
Lys Pro Ser Lys Ile Val Pro Leu Glu Pro Pro Arg Leu Gln Arg Phe		320
	325	330
Gln Cys Gly Glu Leu Pro Phe Leu Thr His Val Asn Pro Arg Leu Arg		335
	340	345
Leu Ser Cys Leu Ser Ile Arg Glu Ser Glu Tyr Ser Ser Ser Leu Gly		350
	355	360
Ile Leu Ala Ser Ser Cys		365
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	380	
	385	
	390	

<210> 2809

<211> 1502

<212> DNA

<213> Homo sapiens

<400> 2809

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120

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180
tcaaaggga atttttacgg aaacatcttg gcagcaagt gaaaaagatc tatggcccat
240
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300
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360
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1080
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1380
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aa
1502

<210> 2810

<211> 102

<212> PRT

<213> Homo sapiens

<400> 2810

Glu Cys Ala Cys Ala Arg Val Cys Val Cys Val Arg Leu Cys Val Arg
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 Val Cys Val Cys Ala Arg Leu Cys Val Cys Val Cys Ala Ser Val Cys
 20 25 30
 Ala Cys Val Cys Ala Cys Val Arg Leu Cys Val Arg Leu Cys Ala Cys
 35 40 45
 Val Cys Ala Ser Val Cys Met Cys Ala Arg Ala Xaa Val Cys Val Cys
 50 55 60
 Thr Cys Val Xaa Leu Cys Thr Arg Val Cys Val Cys Val His Ala Cys
 65 70 75 80
 Val Cys Val Cys Ala Arg Ala Cys Thr Ser Pro Pro Glu His Leu Gly
 85 90 95
 Phe Gly Thr Arg Trp Phe
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<210> 2811

<211> 591

<212> DNA

<213> Homo sapiens

<400> 2811

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<210> 2812

<211> 131

<212> PRT

<213> Homo sapiens

<400> 2812

Met His Pro Ser Ser Ser Ala Ser Gln Pro Ser Val Ala Arg Arg Gln
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 20 25 30
 Pro Ala Pro Ala Val Asp Glu Pro Gln Pro Xaa Ser Gln Ala Pro Pro

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      35              40              45
Gly Pro Arg Val Pro Gly Pro Pro Arg Pro Trp Gly Ala Ala Pro Leu
      50              55              60
Arg Pro Arg Pro Gly Glu Gly Asp Pro Val Thr Arg Glu Arg Ser Pro
65              70              75              80
Val Pro Gly Ala Thr Glu Met Pro Pro Pro Arg Pro Lys Val Pro Ala
      85              90              95
Pro Pro Gly Pro Thr Gly Arg Ser Pro Arg Ala Ala Val Gly His His
      100              105              110
Arg Ala Ala Gly Pro Pro Gly Cys Val Gly Pro Ser Leu Ser Gly Gln
      115              120              125
Leu Gly Ser
      130

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<210> 2813
 <211> 2417
 <212> DNA
 <213> Homo sapiens

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<400> 2813
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180
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1020

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aaaaaaaaaa aaaaaaa
2417

<210> 2814

<211> 471

<212> PRT

<213> Homo sapiens

<400> 2814
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Trp Lys Glu Leu Ser Leu Lys Tyr Lys Gln Ser Phe Gln Glu Ala Arg
35 40 45
Asp Glu Leu Val Glu Phe Gln Glu Gly Ser Arg Glu Leu Glu Ala Glu
50 55 60
Leu Glu Ala Gln Leu Val Gln Ala Glu Gln Arg Asn Arg Asp Leu Gln
65 70 75 80
Ala Asp Asn Gln Arg Leu Lys Tyr Glu Val Glu Ala Leu Lys Glu Lys
85 90 95
Leu Glu His Gln Tyr Ala Gln Ser Tyr Lys Gln Val Ser Val Leu Glu
100 105 110
Asp Asp Leu Ser Gln Thr Arg Ala Ile Lys Glu Gln Leu His Lys Tyr
115 120 125
Val Arg Glu Leu Glu Gln Ala Asn Asp Asp Leu Glu Arg Ala Lys Arg
130 135 140
Ala Thr Ile Val Ser Leu Glu Thr Leu Asn Lys Leu Asn Gln Ala Ile
145 150 155 160
Glu Arg Asn Ala Phe Leu Glu Ser Glu Leu Asp Glu Lys Glu Ser Leu
165 170 175
Leu Val Ser Val Gln Arg Leu Lys Asp Glu Ala Arg Asp Leu Arg Gln
180 185 190
Glu Leu Ala Val Arg Glu Arg Gln Gln Glu Val Thr Arg Lys Ser Ala
195 200 205
Pro Ser Ser Pro Thr Leu Asp Cys Glu Lys Met Asp Ser Ala Val Gln
210 215 220
Ala Ser Leu Ser Leu Pro Ala Thr Pro Val Gly Lys Gly Thr Glu Asn
225 230 235 240
Thr Phe Pro Ser Pro Lys Ala Ile Pro Asn Gly Phe Gly Thr Ser Pro
245 250 255
Leu Thr Pro Ser Ala Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu
260 265 270
Leu Arg Lys Val Gly Ala Leu Glu Ser Lys Leu Ala Ala Cys Arg Asn
275 280 285
Phe Ala Lys Asp Gln Ala Ser Arg Lys Ser Tyr Ile Ser Gly Asn Val
290 295 300
Asn Cys Gly Val Leu Asn Gly Asn Gly Thr Lys Phe Ser Arg Ser Gly
305 310 315 320
His Thr Ser Phe Phe Asp Lys Gly Ala Val Asn Gly Phe Asp Pro Ala
325 330 335
Pro Pro Pro Pro Gly Leu Gly Ser Ser Arg Pro Ser Ser Ala Pro Gly
340 345 350
Met Cys Leu Ser Val Cys Glu Cys Leu Ala Ser Arg Gly Ala Pro Ala
355 360 365
Leu Leu Gln Gln Pro Arg Thr Pro Thr Pro His Pro Ser Val Pro Gly
370 375 380
Pro Ser Pro Val Pro Leu Arg Leu Pro Pro His Gly Trp Gln Arg Ala
385 390 395 400
Gly Cys Met Gln Trp Arg Leu Leu Gly Pro Ala Gln Pro Arg Asn Ser
405 410 415
Ala Arg Tyr Gln Tyr Trp Leu Phe Ser Leu Leu Ala Val Val Pro Leu

	420		425		430										
Val	Ser	His	Asp	Cys	Thr	Phe	Val	Gly	Arg	Lys	Val	Ile	His	Thr	Cys
	435		440		445										
Ile	Thr	Trp	Ser	Leu	Asp	Ala	Glu	Val	Pro	Ile	His	His	Thr	Cys	Pro
	450		455		460										
Ile	Ala	Pro	Thr	Leu	Leu	Tyr									
465			470												

<210> 2815

<211> 1421

<212> DNA

<213> Homo sapiens

<400> 2815

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tgcggggaga cttaggggtc atgctttgtg cccagggcca ccagaggag aaggccaccc
180
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 1320
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<210> 2816

<211> 307

<212> PRT

<213> Homo sapiens

<400> 2816

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			20					25					30		
Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val	Gln	Arg	Val
		35					40					45			
Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg	Ala	Cys	Ser	Thr
	50					55					60				
Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg	Ser	Pro	Gly	Leu	Ala
65					70				75					80	
Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro	Gly	Trp	Lys	Arg	Thr	Ser
				85					90					95	
Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala	Ile	Cys	Gln	Pro	Pro	Cys	Arg
				100				105					110		
Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro	Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly
	115						120					125			
Trp	Arg	Gly	Asp	Thr	Cys	Gln	Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg
	130					135					140				
Arg	Gly	Gly	Cys	Pro	Gln	Arg	Cys	Val	Asn	Thr	Ala	Gly	Ser	Tyr	Trp
145					150					155				160	
Cys	Gln	Cys	Trp	Glu	Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys
				165					170					175	
Val	Pro	Lys	Gly	Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val
			180					185					190		
Asp	Ser	Ala	Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp
	195						200					205			
Leu	Leu	Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	Ala	Pro	Leu	His	Ser	Leu
	210					215					220				
Ala	Ser	Gln	Ala	Gly	Ala	Trp	Ala	Pro	Gly	Pro	Arg	Gln	Pro	Pro	Gly
225					230					235				240	
Ala	Leu	Leu	Pro	Ala	Ala	Arg	Pro	His	Arg	Leu	Pro	Glu	Arg	Ala	Asp
				245					250					255	
Phe	Leu	Pro	Gly	Gly	Ala	Ala	Gly	Val	Leu	Leu	Leu	Gln	Glu	Arg	Leu
			260				265						270		
Xaa	Asp	Cys	Pro	Ala	Pro	Gln	Ala	Gly	Leu	Ser	Pro	Ser	Arg	Arg	Pro
	275						280					285			
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305

<210> 2817

<211> 219

<212> DNA

<213> Homo sapiens

<400> 2817

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 120
 gttctgctgc gggcggagtt ccatcagcac cagcacacac accagcacac gcaccaacac
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<210> 2818

<211> 73

<212> PRT

<213> Homo sapiens

<400> 2818

Xaa	Gly	Phe	Ser	Val	Ser	Leu	Ser	Phe	Phe	Leu	Val	Asp	His	Glu	Leu
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Leu	Arg	Gln	Glu	Leu	Asn	Thr	Arg	Phe	Leu	Val	Gln	Ser	Ala	Glu	Arg
		20						25				30			
Pro	Gly	Ala	Ser	Leu	Gly	Pro	Gly	Val	Leu	Leu	Arg	Ala	Glu	Phe	His
		35					40					45			
Gln	His	Gln	His	Thr	His	Gln	His	Thr	His	Gln	His	Thr	His	Gln	His
	50					55				60					
Gln	His	Thr	Phe	Ala	Pro	Phe	Thr	Arg							
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<210> 2819

<211> 730

<212> DNA

<213> Homo sapiens

<400> 2819

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 120
 ggacccaaag ggcagaaggg ctccatgggg gccctgggg agcggtgcaa gagccactac
 180
 gccgcctttt cgggtgggccg ggaagcccat gcacagcaac cactactacc agacgtgac
 240
 ttcgacacgg agttcgtgaa cctctacgac cacttcaaca tgttcaccgg caagttctac
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 360
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 420

gaccgcagca tcatgcaaag ccagagcctg atgctggagc tgcgagagca ggaccagggtg
 480
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 540
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 600
 ctcctttcct ctgcgccact tccacccctg cgctgtgctg accccaccgc ctcttccccg
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 720
 gccaaagcga
 730

<210> 2820

<211> 195

<212> PRT

<213> Homo sapiens

<400> 2820

Xaa	Thr	Ala	Val	Pro	Gln	Ile	Asn	Ile	Thr	Ile	Leu	Lys	Gly	Glu	Lys
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Gly	Asp	Arg	Gly	Asp	Arg	Gly	Leu	Gln	Gly	Lys	Tyr	Gly	Lys	Thr	Gly
	20						25					30			
Ser	Ala	Gly	Ala	Arg	Gly	His	Thr	Gly	Pro	Lys	Gly	Gln	Lys	Gly	Ser
	35					40					45				
Met	Gly	Ala	Pro	Gly	Glu	Arg	Cys	Lys	Ser	His	Tyr	Ala	Ala	Phe	Ser
	50					55					60				
Val	Gly	Arg	Glu	Ala	His	Ala	Gln	Gln	Pro	Leu	Leu	Pro	Asp	Val	Ile
65					70				75					80	
Phe	Asp	Thr	Glu	Phe	Val	Asn	Leu	Tyr	Asp	His	Phe	Asn	Met	Phe	Thr
	85							90					95		
Gly	Lys	Phe	Tyr	Cys	Tyr	Val	Pro	Gly	Leu	Tyr	Phe	Phe	Ser	Leu	Asn
	100						105					110			
Val	His	Thr	Trp	Asn	Gln	Lys	Glu	Thr	Tyr	Leu	His	Ile	Met	Lys	Asn
	115					120					125				
Glu	Glu	Glu	Val	Val	Ile	Leu	Phe	Ala	Gln	Val	Gly	Asp	Arg	Ser	Ile
	130					135					140				
Met	Gln	Ser	Gln	Ser	Leu	Met	Leu	Glu	Leu	Arg	Glu	Gln	Asp	Gln	Val
145					150				155					160	
Trp	Val	Arg	Leu	Tyr	Lys	Gly	Glu	Arg	Glu	Asn	Ala	Ile	Phe	Ser	Glu
	165							170					175		
Glu	Leu	Asp	Thr	Tyr	Ile	Thr	Phe	Ser	Gly	Tyr	Leu	Val	Lys	His	Ala
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Thr	Glu	Pro													
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<210> 2821

<211> 1746

<212> DNA

<213> Homo sapiens

<400> 2821

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120
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180
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300
ctcatcaagg gccagtttct tcgaatgccc ttggacaaac acatggaaat ggaagacatc
360
tcatacagaag aagttgtgga aatagaatac gtggagaagt atactgcacc ccagccagag
420
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480
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540
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600
tgcttattan ttgagtgtct ctatggatca gactattctc ttatgggagt ggaatgtaga
660
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720
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780
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840
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1080
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1140
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1260
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1320
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1440
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1500
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1560
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1620
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 1746

<210> 2822
 <211> 424
 <212> PRT
 <213> Homo sapiens

<400> 2822
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 35 40 45
 Lys His Val Glu Phe Asp Phe Leu Ile Lys Gly Gln Phe Leu Arg Met
 50 55 60
 Pro Leu Asp Lys His Met Glu Met Glu Asp Ile Ser Ser Glu Glu Val
 65 70 75 80
 Val Glu Ile Glu Tyr Val Glu Lys Tyr Thr Ala Pro Gln Pro Glu Gln
 85 90 95
 Cys Met Phe His Asp Asp Trp Ile Ser Ser Ile Lys Gly Ala Glu Glu
 100 105 110
 Trp Ile Leu Thr Gly Ser Tyr Gly Lys Thr Ser Arg Ile Trp Ser Leu
 115 120 125
 Glu Gly Lys Ser Ile Met Thr Ile Val Gly His Thr Asp Val Val Lys
 130 135 140
 Asp Val Ala Trp Val Lys Lys Asp Ser Leu Ser Cys Leu Leu Xaa Glu
 145 150 155 160
 Cys Phe Tyr Gly Ser Asp Tyr Ser Leu Met Gly Val Glu Cys Arg Glu
 165 170 175
 Lys Gln Ser Glu Ser Pro Thr Leu Leu Xaa Arg Gly His Ala Gly Ser
 180 185 190
 Val Asp Ser Ile Ala Val Asp Gly Ser Gly Thr Lys Phe Cys Ser Gly
 195 200 205
 Ser Trp Asp Lys Met Leu Lys Ile Trp Ser Thr Val Pro Thr Asp Glu
 210 215 220
 Glu Asp Glu Met Glu Glu Ser Thr Asn Arg Pro Arg Lys Lys Gln Lys
 225 230 235 240
 Thr Glu Gln Leu Gly Leu Thr Arg Thr Pro Ile Val Thr Leu Ser Gly
 245 250 255
 His Met Glu Ala Val Ser Ser Val Leu Trp Ser Asp Ala Glu Glu Ile
 260 265 270
 Cys Ser Ala Ser Trp Asp His Thr Ile Arg Val Trp Asp Val Glu Ser
 275 280 285
 Gly Ser Leu Lys Ser Thr Leu Thr Gly Asn Lys Val Phe Asn Cys Ile
 290 295 300
 Ser Tyr Ser Pro Leu Cys Lys Arg Leu Ala Ser Gly Ser Thr Asp Arg
 305 310 315 320
 His Ile Arg Leu Trp Asp Pro Arg Thr Lys Asp Gly Ser Leu Val Ser
 325 330 335
 Leu Ser Leu Thr Ser His Thr Gly Trp Val Thr Ser Val Lys Trp Ser

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          340          345          350
Pro Thr His Glu Gln Gln Leu Ile Ser Gly Ser Leu Asp Asn Ile Val
          355          360          365
Lys Leu Trp Asp Thr Arg Ser Cys Lys Ala Pro Leu Tyr Asp Leu Ala
          370          375          380
Ala His Glu Asp Lys Val Leu Ser Val Asp Trp Thr Asp Thr Gly Leu
385          390          395          400
Leu Leu Ser Gly Gly Ala Asp Asn Lys Leu Tyr Ser Tyr Arg Tyr Ser
          405          410          415
Pro Thr Thr Ser His Val Gly Ala
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<210> 2823

<211> 461

<212> DNA

<213> Homo sapiens

<400> 2823

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120
ggtgggtggt gaccctgtt gggaggcaga cacagtcaca ggcgtcgccc ttgggaaggg
180
cagccggaga agctggccct gtgtgggcct gggcctgtag gggttcccag tggctttgcg
240
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300
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360
tgcagcatct gtgaggatca aatgcgtgca cctacgcaaa gcatccgcac atagcaagtg
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<210> 2824

<211> 81

<212> PRT

<213> Homo sapiens

<400> 2824

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Asp Gln Val Pro Ser Ser Ser Leu Ala Pro Gln Ser His Trp Glu Thr
          20          25          30
Leu Gln Ala Gln Ala His Thr Gly Pro Ala Ser Pro Ala Ala Leu Pro
          35          40          45
Lys Gly Asp Ala Cys Asp Cys Val Cys Leu Pro Thr Gly Val Thr Thr
          50          55          60
His Pro Arg Pro Pro Glu Pro Gln His Glu Gly Ser Ala Pro Phe Pro
65          70          75          80
His

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<210> 2825
 <211> 1520
 <212> DNA
 <213> Homo sapiens

<400> 2825
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 120
 gatggacatg tagaggtggc acgtttgctt ttggatagtg gtgctcaagt gaacatgcct
 180
 gcagattcat ttgaatctcc attgacgcta gctgcctgtg gaggacatgt tgaattggca
 240
 gctctactta ttgaaagggg agcaaactct gaagaagtta atgatgaagg atacactccc
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 360
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 420
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 660
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 720
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 780
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 1020
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 1080
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 1320
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 1380
 accaaggaga agatcgagga gctcaacaaa acaaggaggg aacaaattca gaagaaacaa
 1440

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<210> 2826

<211> 506

<212> PRT

<213> Homo sapiens

<400> 2826

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			20					25					30		
Thr	Ala	Leu	Met	Glu	Ala	Cys	Met	Asp	Gly	His	Val	Glu	Val	Ala	Arg
		35					40					45			
Leu	Leu	Leu	Asp	Ser	Gly	Ala	Gln	Val	Asn	Met	Pro	Ala	Asp	Ser	Phe
50					55					60					
Glu	Ser	Pro	Leu	Thr	Leu	Ala	Ala	Cys	Gly	Gly	His	Val	Glu	Leu	Ala
65					70				75						80
Ala	Leu	Leu	Ile	Glu	Arg	Gly	Ala	Asn	Leu	Glu	Glu	Val	Asn	Asp	Glu
				85				90					95		
Gly	Tyr	Thr	Pro	Leu	Met	Glu	Ala	Ala	Arg	Glu	Gly	His	Glu	Glu	Met
			100					105					110		
Val	Ala	Leu	Leu	Leu	Ser	Thr	Arg	Ser	Xaa	Ile	Ser	Met	His	Arg	Gln
		115					120					125			
Lys	Lys	Leu	Lys	Lys	Leu	Leu	Leu	Thr	Leu	Ala	Cys	Cys	Gly	Gly	Phe
130						135					140				
Leu	Glu	Val	Ala	Asp	Phe	Leu	Ile	Lys	Ala	Gly	Ala	Asp	Ile	Glu	Leu
145					150					155					160
Gly	Cys	Ser	Thr	Pro	Leu	Met	Glu	Ala	Ala	Gln	Glu	Gly	His	Leu	Glu
				165				170					175		
Leu	Val	Lys	Tyr	Leu	Leu	Ala	Ala	Gly	Ala	Asn	Val	His	Ala	Thr	Thr
			180					185					190		
Ala	Thr	Gly	Asp	Thr	Ala	Leu	Thr	Tyr	Ala	Cys	Glu	Asn	Gly	His	Thr
		195					200					205			
Asp	Val	Ala	Asp	Val	Leu	Leu	Gln	Ala	Gly	Ala	Asp	Leu	Asp	Lys	Gln
210						215					220				
Glu	Asp	Met	Lys	Thr	Ile	Leu	Glu	Gly	Ile	Asp	Pro	Ala	Lys	His	Leu
225					230					235					240
Glu	His	Glu	Ser	Glu	Gly	Gly	Arg	Thr	Pro	Leu	Met	Lys	Ala	Ala	Arg
				245					250				255		
Ala	Gly	His	Val	Cys	Thr	Val	Gln	Phe	Leu	Ile	Ser	Lys	Gly	Ala	Asn
			260					265					270		
Val	Asn	Arg	Thr	Thr	Ala	Asn	Asn	Asp	His	Thr	Val	Leu	Ser	Leu	Ala
		275					280					285			
Cys	Ala	Gly	Gly	His	Leu	Ala	Val	Val	Glu	Leu	Leu	Leu	Ala	His	Gly
290						295					300				
Ala	Asp	Pro	Thr	His	Arg	Leu	Lys	Asp	Gly	Ser	Thr	Met	Leu	Ile	Glu
305					310					315					320
Ala	Ala	Lys	Gly	Gly	His	Thr	Ser	Val	Val	Cys	Tyr	Leu	Leu	Asp	Tyr
				325					330					335	
Pro	Asn	Asn	Leu	Leu	Ser	Ala	Pro	Pro	Pro	Asp	Val	Thr	Gln	Leu	Thr

				340				345					350				
Pro	Pro	Ser	His	Asp	Leu	Asn	Arg	Ala	Pro	Arg	Val	Pro	Val	Gln	Ala		
			355				360					365					
Leu	Pro	Met	Val	Val	Pro	Pro	Gln	Glu	Pro	Asp	Lys	Pro	Pro	Ala	Asn		
			370				375					380					
Val	Ala	Thr	Thr	Leu	Pro	Ile	Arg	Asn	Lys	Ala	Ala	Ser	Lys	Gln	Lys		
385					390				395							400	
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 Ser Val Ile Phe Ser Gln Trp Gly Cys Gly Phe Ser Leu Cys Pro Gly
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 Gly Thr Arg Thr Ser Ser Gly Arg Leu Arg Arg Leu Gly Asp Ser Ser
 35 40 45
 Gly Pro Ala Leu Lys Arg Ser Phe Glu Val Glu Glu Val Glu Thr Pro
 50 55 60
 Asn Ser Thr Pro Pro Arg Arg Val Gln Thr Pro Leu Leu Arg Ala Thr
 65 70 75 80
 Val Ala Ser Ser Thr Gln Lys Phe Gln Asp Leu Gly Val Lys Asn Ser
 85 90 95
 Glu Pro Ser Ala Arg His Val Asp Ser Leu Ser Gln Arg Ser Pro Lys
 100 105 110
 Ala Ser Leu Arg Arg Val Glu Leu Ser Gly Pro Lys Ala Ala Glu Pro
 115 120 125
 Val Ser Arg Arg Thr Glu Leu Ser Ile Asp Ile Ser Ser Lys Gln Val
 130 135 140
 Glu Asn Ala Gly Ala Ile Gly Pro Ser Arg Phe Gly Leu Lys Arg Ala
 145 150 155 160
 Glu Val Leu Gly His Lys Thr Pro Glu Pro Ala Pro Arg Arg Thr Glu
 165 170 175
 Ile Thr Ile Val Lys Pro Gln Glu Ser Ala His Arg Arg Met Glu Pro
 180 185 190
 Pro Ala Ser Lys Val Pro Glu Val Pro Thr Ala Pro Ala Thr Asp Ala
 195 200 205
 Ala Pro Lys Arg Val Glu Ile Gln Met Pro Lys Pro Ala Glu Ala Pro
 210 215 220
 Thr Ala Pro Ser Pro Ala Gln Thr Leu Glu Asn Ser Glu Pro Ala Pro
 225 230 235 240
 Val Ser Gln Leu Gln Ser Arg Leu Glu Pro Lys Pro Gln Pro Pro Val
 245 250 255
 Ala Glu Ala Thr Pro Arg Ser Gln Glu Ala Thr Glu Ala Ala Pro Ser
 260 265 270
 Cys Val Gly Asp Met Ala Asp Thr Pro Arg Asp Ala Gly Leu Lys Gln
 275 280 285
 Ala Pro Ala Ser Arg Asn Glu Lys Ala Pro Val Asp Phe Gly Tyr Val
 290 295 300
 Gly Ile Asp Ser Ile Leu Glu Gln Met Arg Arg Lys Ala Met Lys Gln
 305 310 315 320
 Gly Phe Glu Phe Asn Ile Met Val Val Gly Gln Ser Gly Leu Gly Lys
 325 330 335
 Ser Thr Leu Ile Asn Thr Leu Phe Lys Ser Lys Ile Ser Arg Lys Ser
 340 345 350
 Val Gln Pro Thr Ser Glu Glu Arg Ile Pro Lys Thr Ile Glu Ile Lys
 355 360 365
 Ser Ile Thr His Asp Ile Glu Glu Lys Gly Val Arg Met Lys Leu Thr

370	375	380
Val Ile Asp Thr Pro Gly Phe Gly Asp His Ile Asn Asn Glu Asn Cys		
385	390	395
Trp Gln Pro Ile Met Lys Phe Ile Asn Asp Gln Tyr Glu Lys Tyr Leu		400
	405	410
Gln Glu Glu Val Asn Ile Asn Arg Lys Lys Arg Ile Pro Asp Thr Arg		415
	420	425
Val His Cys Cys Leu Tyr Phe Ile Pro Ala Thr Gly His Ser Leu Arg		430
	435	440
Pro Leu Asp Ile Glu Phe Met Lys Arg Leu Ser Lys Val Val Asn Ile		445
	450	455
Val Pro Val Ile Ala Lys Ala Asp Thr Leu Thr Leu Glu Glu Arg Val		460
465	470	475
His Phe Lys Gln Arg Ile Thr Ala Asp Leu Leu Ser Asn Gly Ile Asp		480
	485	490
Val Tyr Pro Gln Lys Glu Phe Asp Glu Asp Ser Glu Asp Arg Leu Val		495
	500	505
Asn Glu Lys Phe Arg Glu Met Ile Pro Phe Ala Val Val Gly Ser Asp		510
	515	520
His Glu Tyr Gln Val Asn Gly Lys Arg Ile Leu Gly Arg Lys Thr Lys		525
	530	535
Trp Gly Thr Ile Glu Val Glu Asn Thr Thr His Cys Glu Phe Ala Tyr		540
545	550	555
Leu Arg Asp Leu Leu Ile Arg Thr His Met Gln Asn Ile Lys Asp Ile		560
	565	570
Thr Ser Ser Ile His Phe Glu Ala Tyr Arg Val Lys Arg Leu Asn Glu		575
	580	585
Gly Ser Ser Ala Met Ala Asn Gly Val Glu Glu Lys Glu Pro Glu Ala		590
	595	600
Pro Glu Met		605
610		

<210> 2833

<211> 420

<212> DNA

<213> Homo sapiens

<400> 2833

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ctcgggctgc tcaggtcccc aacgctccgg ggccatggag gtgcttccgg ccggaatgtg
180
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240
acatcgccgg ccttggttctc cggacgtggg gcagccaccg gggggcgcca gggaggacgc
300
ttcgatacca aatgcctcgc ggctgccact tggggacgcc ttcctggtcc cgaagaaaca
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<210> 2834

<211> 117
 <212> PRT
 <213> Homo sapiens

<400> 2834
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 Leu Leu Arg Leu Leu Arg Ser Pro Thr Leu Arg Gly His Gly Gly Ala
 20 25 30
 Ser Gly Arg Asn Val Thr Thr Gly Ser Leu Gly Glu Pro Gln Trp Leu
 35 40 45
 Arg Val Ala Thr Gly Gly Arg Pro Gly Thr Ser Pro Ala Leu Phe Ser
 50 55 60
 Gly Arg Gly Ala Ala Thr Gly Gly Arg Gln Gly Gly Arg Phe Asp Thr
 65 70 75 80
 Lys Cys Leu Ala Ala Ala Thr Trp Gly Arg Leu Pro Gly Pro Glu Glu
 85 90 95
 Thr Leu Pro Gly Gln Asp Ser Trp Asn Gly Val Pro Ser Arg Ala Gly
 100 105 110
 Leu Gly Met Cys Ala
 115

<210> 2835
 <211> 938
 <212> DNA
 <213> Homo sapiens

<400> 2835
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 gcccaaggcg ggggagtggg gaagagaggg aaggagagc ccccgagga agtacatgaa
 120
 tgagtgggtt actgctgcgg gcaactggga ctccatcctg ctgggcatcc tctgagagtt
 180
 tatgtagaat acacttcaga attgtcctgc tcaaggacaa tgaagctgag gtccctgctcc
 240
 ttattgactc agggttgctg ctccctgggga cattaacccc ccaacacttc tagcttgccc
 300
 agtgactga ctgagcacac agctgtggcc accagagaac ctctttgggc tgtgatacag
 360
 gaaaccatcg gtgtgcatgg taactctcta gcagtgtcct tcatgccggg acatggggac
 420
 acgggcaggc actgctggca tctgctaacc ccggaggccc atacttcaga accggtcagc
 480
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 540
 tcagagaccc tgagtgtgcy aggggaagat attggtgaag acctgttctc tgaggccctg
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 ggccgggcag tggggcagtg ggcgggggcc aagctgctgg accatggctg tgtggagagc
 660
 agcattctgg attcctctgc gggctctgct cccactacg aggtgtttgt ggcgctgagg
 720
 gggctgagga atctgtcaga ggaaaatcga gacaagctgg accactgcct tcaggaagcc
 780

tctccccgct acaagtcctt gcggttcttg ggcagcgtgg gccctgcaga gtccacctgg
 840
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 938

<210> 2836
 <211> 178
 <212> PRT
 <213> Homo sapiens

<400> 2836
 Met Pro Gly His Gly Asp Thr Gly Arg His Cys Trp His Leu Leu Thr
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 Pro Glu Ala His Thr Ser Glu Pro Val Ser Trp Ala Lys Ala Ser Leu
 20 25 30
 Arg Pro Ser Gly Ser His Gly Gln Met Ser Gly Asp Thr Glu Ser Glu
 35 40 45
 Thr Leu Ser Val Arg Gly Glu Asp Ile Gly Glu Asp Leu Phe Ser Glu
 50 55 60
 Ala Leu Gly Arg Ala Val Gly Gln Trp Ala Gly Ala Lys Leu Leu Asp
 65 70 75 80
 His Gly Cys Val Glu Ser Ser Ile Leu Asp Ser Ser Ala Gly Ser Ala
 85 90 95
 Pro His Tyr Glu Val Phe Val Ala Leu Arg Gly Leu Arg Asn Leu Ser
 100 105 110
 Glu Glu Asn Arg Asp Lys Leu Asp His Cys Leu Gln Glu Ala Ser Pro
 115 120 125
 Arg Tyr Lys Ser Leu Arg Phe Trp Gly Ser Val Gly Pro Ala Glu Ser
 130 135 140
 Thr Trp Trp Cys Pro Glu Ser Ser Pro Ala Pro Pro Pro Ser Ser Pro
 145 150 155 160
 Gln Arg Pro Pro Arg Pro Ser Leu Trp Asp Leu Ser Gly Trp Gly Val
 165 170 175
 Leu Gly

<210> 2837
 <211> 1250
 <212> DNA
 <213> Homo sapiens

<400> 2837
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 gttttcaciaa tggaggactc cggaaagact ttcagctccg aggaggaaga agctaactat
 120
 tggaaagatc tggcgatgac ctacaaacag agggcagaaa atacgcaaga ggaactccga
 180
 gaattccagg agggaagccg agaatatgaa gctgaattgg agacgcagct gcaacaaatt
 240
 gaaaccagga acagagacct cctgtccgaa aataaccgcc ttcgcatgga gctggaaacc
 300

atcaaggaga agtttgaagt gcagcactct gaaggctacc ggcagatctc agccttggag
 360
 gatgacctcg cgcagaccaa agccattaaa gaccaattgc agaaatacat cagagagctg
 420
 gagcaagcaa atgacgccct ggaaagagcc aagcgcgcca cgatcatgtc tctcgaagac
 480
 tttgagcagc gcttgaatca ggccatcgaa agaaatgcct tcctggaaag tgaacttgat
 540
 gaaaaagaga atctcctgga atctgttcag agactgaagg atgaagccag agatttgcgg
 600
 caggaactgg ccgtgcagca gaagcaggag aaaccagga ccccatgcc cagctcagt
 660
 gaagctgaga ggacagacac agctgtgcag gccacgggct ccgtgccgtc cagccccatt
 720
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 780
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 840
 ggagacctac tgcggaaagt cggggcactg gagtccaaac tcgcttctct ccggaacctc
 900
 gtgtacgatc agtccccaaa ccgaacaggt ggcccagcct ctgggcggag cagcaagaac
 960
 agagatggcg gggagagacg gccaaagcagc accagcgtgc ctttgggtga taaggggtca
 1020
 gtaccttcta ataaacctct cgctggcggg gagaaccgcg ctgccccagg caagagacac
 1080
 tcacccccag cccacagcca tgtgtctttt taaattatag gattatttca gcaaacctta
 1140
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 1250

<210> 2838

<211> 370

<212> PRT

<213> Homo sapiens

<400> 2838

Xaa	Leu	Pro	Ser	Ser	Pro	Leu	Leu	Glu	His	His	Ala	Thr	Arg	Arg	Val
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Ile	Ser	Ser	Pro	Val	Phe	Thr	Met	Glu	Asp	Ser	Gly	Lys	Thr	Phe	Ser
			20					25					30		
Ser	Glu	Glu	Glu	Glu	Ala	Asn	Tyr	Trp	Lys	Asp	Leu	Ala	Met	Thr	Tyr
		35					40					45			
Lys	Gln	Arg	Ala	Glu	Asn	Thr	Gln	Glu	Glu	Leu	Arg	Glu	Phe	Gln	Glu
		50				55				60					
Gly	Ser	Arg	Glu	Tyr	Glu	Ala	Glu	Leu	Glu	Thr	Gln	Leu	Gln	Gln	Ile
65					70					75					80
Glu	Thr	Arg	Asn	Arg	Asp	Leu	Leu	Ser	Glu	Asn	Asn	Arg	Leu	Arg	Met
			85					90					95		
Glu	Leu	Glu	Thr	Ile	Lys	Glu	Lys	Phe	Glu	Val	Gln	His	Ser	Glu	Gly
			100				105						110		
Tyr	Arg	Gln	Ile	Ser	Ala	Leu	Glu	Asp	Asp	Leu	Ala	Gln	Thr	Lys	Ala

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      115              120              125
Ile Lys Asp Gln Leu Gln Lys Tyr Ile Arg Glu Leu Glu Gln Ala Asn
      130              135              140
Asp Ala Leu Glu Arg Ala Lys Arg Ala Thr Ile Met Ser Leu Glu Asp
      145              150              155              160
Phe Glu Gln Arg Leu Asn Gln Ala Ile Glu Arg Asn Ala Phe Leu Glu
      165              170              175
Ser Glu Leu Asp Glu Lys Glu Asn Leu Leu Glu Ser Val Gln Arg Leu
      180              185              190
Lys Asp Glu Ala Arg Asp Leu Arg Gln Glu Leu Ala Val Gln Gln Lys
      195              200              205
Gln Glu Lys Pro Arg Thr Pro Met Pro Ser Ser Val Glu Ala Glu Arg
      210              215              220
Thr Asp Thr Ala Val Gln Ala Thr Gly Ser Val Pro Ser Thr Pro Ile
      225              230              235              240
Ala His Arg Gly Pro Ser Ser Ser Leu Asn Thr Pro Gly Ser Phe Arg
      245              250              255
Arg Gly Leu Asp Asp Xaa His Arg Gly Thr Pro Leu Thr Pro Ala Ala
      260              265              270
Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu Leu Arg Lys Val Gly
      275              280              285
Ala Leu Glu Ser Lys Leu Ala Ser Cys Arg Asn Leu Val Tyr Asp Gln
      290              295              300
Ser Pro Asn Arg Thr Gly Gly Pro Ala Ser Gly Arg Ser Ser Lys Asn
      305              310              315              320
Arg Asp Gly Gly Glu Arg Arg Pro Ser Ser Thr Ser Val Pro Leu Gly
      325              330              335
Asp Lys Gly Ser Val Pro Ser Asn Lys Pro Leu Ala Gly Gly Glu Asn
      340              345              350
Pro Pro Ala Pro Gly Lys Arg His Ser Pro Pro Ala His Ser His Val
      355              360              365
Ser Phe
      370

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<210> 2839

<211> 606

<212> DNA

<213> Homo sapiens

<400> 2839

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120
agctgttctc tgcactacat ccacccttac caaccaatg agtatctgaa agctttggta
180
gctgtggggg agatttgcca agactatgac agtgacaaaa tgttcctgc ctttgggttt
240
ggcgccagga tacctccaga gtacacggtc tctcatgact ttgcaatcaa ctttaatgaa
300
gacaaccag aatgtgcagg aattcaagga gttgtggaag cctatcagag ctgtcttctc
360
aagctccaac tctacggtcc caccaacatt gccccatca tccagaaggt tgccaagtca
420

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gcgtcagagg aaactaacac caaagaggca tcgcaatact tcatcctgct gatcctgaca
 480
 gatgggtgta tcacagacat gggcgacacc cgggaggcca ttgtccatgc ctcccacctc
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 606

<210> 2840

<211> 202

<212> PRT

<213> Homo sapiens

<400> 2840

Ile	Leu	Asn	Leu	Cys	Lys	Ile	His	Lys	Met	His	Ser	Phe	Leu	Asp	Tyr
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Ile	Met	Gly	Gly	Cys	Gln	Ile	Gln	Phe	Thr	Val	Ala	Ile	Asp	Phe	Ala
		20						25					30		
Ala	Thr	Asn	Gly	Asp	Pro	Arg	Asn	Ser	Cys	Ser	Leu	His	Tyr	Ile	His
		35					40					45			
Pro	Tyr	Gln	Pro	Asn	Glu	Tyr	Leu	Lys	Ala	Leu	Val	Ala	Val	Gly	Glu
	50					55				60					
Ile	Cys	Gln	Asp	Tyr	Asp	Ser	Asp	Lys	Met	Phe	Pro	Ala	Phe	Gly	Phe
65				70						75				80	
Gly	Ala	Arg	Ile	Pro	Pro	Glu	Tyr	Thr	Val	Ser	His	Asp	Phe	Ala	Ile
			85					90					95		
Asn	Phe	Asn	Glu	Asp	Asn	Pro	Glu	Cys	Ala	Gly	Ile	Gln	Gly	Val	Val
		100					105					110			
Glu	Ala	Tyr	Gln	Ser	Cys	Leu	Pro	Lys	Leu	Gln	Leu	Tyr	Gly	Pro	Thr
		115					120					125			
Asn	Ile	Ala	Pro	Ile	Ile	Gln	Lys	Val	Ala	Lys	Ser	Ala	Ser	Glu	Glu
	130					135					140				
Thr	Asn	Thr	Lys	Glu	Ala	Ser	Gln	Tyr	Phe	Ile	Leu	Leu	Ile	Leu	Thr
145				150						155				160	
Asp	Gly	Val	Ile	Thr	Asp	Met	Gly	Asp	Thr	Arg	Glu	Ala	Ile	Val	His
			165					170					175		
Ala	Ser	His	Leu	Pro	Met	Ser	Val	Ile	Ile	Val	Gly	Val	Gly	Asn	Ala
		180						185					190		
Asp	Phe	Ser	Asp	Met	Gln	Met	Leu	Asp	Gly						
	195						200								

<210> 2841

<211> 2065

<212> DNA

<213> Homo sapiens

<400> 2841

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 120
 gaagggccag ttcaggtggc cggagctcct gagctgccct aggggactgc tgtgggtctg
 180

aggtggtgat gtccccacg gctgcctgcg cctgagcccc cacgcatcca cccctggggc
240
cactctgctg ttcaggagca cccacccgtg tcctcgacca tgagcagccc cccagcttac
300
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360
ctggacaggc tcctgccacc tgtgggcact gggcgctctc cccggaagcg gaccaccagc
420
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600
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660
caccaggtgc tgactgagca gcagcaggaa caggccgcac acaacaactt caacttcgac
720
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780
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960
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1020
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1140
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1260
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1740
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1800

ttccgcatca tcccaggcat tgggaacttt ggcgaccgct actttgggac agacgcggtc
 1860
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 1920
 cgtccccacc accctcctcc tgcctcctga cccaggactg ctgaatacaa agatgttaat
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 2065

<210> 2842

<211> 540

<212> PRT

<213> Homo sapiens

<400> 2842

Met	Ser	Ser	Pro	Pro	Ala	Tyr	Pro	Gly	Ile	Arg	Ile	Ser	Gly	Cys	Arg
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Ala	Leu	Gly	Ala	Glu	Gly	Ser	Asn	Ala	Glu	Ser	Leu	Asp	Arg	Leu	Leu
		20					25					30			
Pro	Pro	Val	Gly	Thr	Gly	Arg	Ser	Pro	Arg	Lys	Arg	Thr	Thr	Ser	Gln
		35				40					45				
Cys	Lys	Ser	Glu	Pro	Pro	Leu	Leu	Arg	Thr	Ser	Lys	Arg	Thr	Ile	Tyr
	50				55			60							
Thr	Ala	Gly	Arg	Pro	Pro	Trp	Tyr	Asn	Glu	His	Gly	Thr	Gln	Ser	Lys
65				70				75					80		
Glu	Ala	Phe	Ala	Ile	Gly	Leu	Gly	Gly	Gly	Ser	Ala	Ser	Gly	Lys	Thr
			85				90						95		
Thr	Val	Ala	Arg	Met	Ile	Ile	Glu	Ala	Leu	Asp	Val	Pro	Trp	Val	Val
		100					105				110				
Leu	Leu	Ser	Met	Asp	Ser	Phe	Tyr	Lys	Val	Leu	His	Ser	Leu	Pro	His
	115				120						125				
Gln	Val	Leu	Thr	Glu	Gln	Gln	Gln	Glu	Gln	Ala	Ala	His	Asn	Asn	Phe
	130				135					140					
Asn	Phe	Asp	His	Pro	Asp	Ala	Phe	Asp	Phe	Asp	Leu	Ile	Ile	Ser	Thr
145				150				155					160		
Leu	Lys	Lys	Leu	Lys	Gln	Gly	Lys	Ser	Val	Lys	Val	Pro	Ile	Tyr	Asp
		165					170						175		
Phe	Thr	Thr	His	Ser	Arg	Lys	Lys	Asp	Trp	Lys	Thr	Leu	Tyr	Gly	Ala
		180					185					190			
Asn	Val	Ile	Ile	Phe	Glu	Gly	Ile	Met	Ala	Phe	Ala	Asp	Lys	Thr	Leu
	195					200					205				
Leu	Glu	Leu	Leu	Asp	Met	Lys	Ile	Phe	Val	Asp	Thr	Asp	Ser	Asp	Ile
	210				215					220					
Arg	Leu	Val	Arg	Arg	Leu	Arg	Arg	Asp	Ile	Ser	Glu	Arg	Gly	Arg	Asp
225				230				235					240		
Ile	Glu	Gly	Val	Ile	Lys	Gln	Tyr	Asn	Lys	Phe	Val	Lys	Pro	Ser	Phe
		245					250						255		
Asp	Gln	Tyr	Ile	Gln	Pro	Thr	Met	Arg	Leu	Ala	Asp	Ile	Val	Val	Pro
	260					265						270			
Arg	Gly	Ser	Gly	Asn	Thr	Val	Ala	Ile	Asp	Leu	Ile	Val	Gln	His	Val
	275					280						285			
His	Ser	Gln	Leu	Glu	Glu	Arg	Glu	Leu	Ser	Val	Arg	Ala	Ala	Leu	Ala

290		295		300
Ser Ala His Gln Cys His Pro Leu Pro Arg Thr Leu Ser Val Leu Lys				
305		310		315
Ser Thr Pro Gln Val Arg Gly Met His Thr Ile Ile Arg Asp Lys Glu				
	325		330	335
Thr Ser Arg Asp Glu Phe Ile Phe Tyr Ser Lys Arg Leu Met Arg Leu				
	340		345	350
Leu Ile Glu His Ala Leu Ser Phe Leu Pro Phe Gln Asp Cys Val Val				
	355		360	365
Gln Thr Pro Gln Gly Gln Asp Tyr Ala Gly Lys Cys Tyr Ala Gly Lys				
	370		375	380
Gln Ile Thr Gly Val Ser Ile Leu Arg Ala Gly Glu Thr Met Glu Pro				
385		390		395
Ala Leu Arg Ala Val Cys Lys Asp Val Arg Ile Gly Thr Ile Leu Ile				
	405		410	415
Gln Thr Asn Gln Leu Thr Gly Glu Pro Glu Leu His Tyr Leu Arg Leu				
	420		425	430
Pro Lys Asp Ile Ser Asp Asp His Val Ile Leu Met Asp Cys Thr Val				
	435		440	445
Ser Thr Gly Ala Ala Ala Met Met Ala Val Arg Val Leu Leu Asp His				
	450		455	460
Asp Val Pro Glu Asp Lys Ile Phe Leu Leu Ser Leu Leu Met Ala Glu				
465		470		475
Met Gly Val His Ser Val Ala Tyr Ala Phe Pro Arg Val Arg Ile Ile				
	485		490	495
Thr Thr Ala Val Asp Lys Arg Val Asn Asp Leu Phe Arg Ile Ile Pro				
	500		505	510
Gly Ile Gly Asn Phe Gly Asp Arg Tyr Phe Gly Thr Asp Ala Val Pro				
	515		520	525
Asp Gly Ser Asp Glu Glu Glu Val Ala Tyr Thr Gly				
530		535		540

<210> 2843

<211> 497

<212> DNA

<213> Homo sapiens

<400> 2843

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120
caaagcccag aatttgaagc tcaaagttcc aaattccagg aaggtgcgga gatgcttctg
180
aacccccgagg aaaagagtcc tttgaatatc tccgtaggag ttcaccccct ggactccttc
240
actcaggggt ttggggagca gccacaggg gacctgccca tagggccacc ttttgagatg
300
cccacagggg ccctgctgtc tacaccgcag tttgagatgc ttcagaatcc cctgggtctc
360
acaggagccc ttcgaggtcc aggtcggcgg ggtggccggg cccgggggtgg gcagggccct
420
cggcctaaca tctgtggcat ctgggggaag agcttcgggc gggactaccc tgatccagca
480

caggcatcca caccggt
497

<210> 2844

<211> 165

<212> PRT

<213> Homo sapiens

<400> 2844

Pro	Arg	Tyr	Glu	Pro	Gln	Ser	Pro	Gly	Tyr	Glu	Pro	Arg	Ser	Pro	Gly
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Tyr	Glu	Pro	Arg	Ser	Pro	Gly	Tyr	Glu	Ser	Glu	Ser	Ser	Arg	Tyr	Glu
			20					25					30		
Ser	Gln	Asn	Thr	Glu	Leu	Lys	Thr	Gln	Ser	Pro	Glu	Phe	Glu	Ala	Gln
			35				40					45			
Ser	Ser	Lys	Phe	Gln	Glu	Gly	Ala	Glu	Met	Leu	Leu	Asn	Pro	Glu	Glu
			50				55				60				
Lys	Ser	Pro	Leu	Asn	Ile	Ser	Val	Gly	Val	His	Pro	Leu	Asp	Ser	Phe
65					70					75				80	
Thr	Gln	Gly	Phe	Gly	Glu	Gln	Pro	Thr	Gly	Asp	Leu	Pro	Ile	Gly	Pro
			85						90					95	
Pro	Phe	Glu	Met	Pro	Thr	Gly	Ala	Leu	Leu	Ser	Thr	Pro	Gln	Phe	Glu
			100					105					110		
Met	Leu	Gln	Asn	Pro	Leu	Gly	Leu	Thr	Gly	Ala	Leu	Arg	Gly	Pro	Gly
			115				120					125			
Arg	Arg	Gly	Gly	Arg	Ala	Arg	Gly	Gly	Gln	Gly	Pro	Arg	Pro	Asn	Ile
			130				135				140				
Cys	Gly	Ile	Trp	Gly	Lys	Ser	Phe	Gly	Arg	Asp	Tyr	Pro	Asp	Pro	Ala
145					150					155				160	
Gln	Ala	Ser	Thr	Pro											

<210> 2845

<211> 934

<212> DNA

<213> Homo sapiens

<400> 2845

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120
ttcaccaagg ctcgggggttc tatagcccct ttctgggaca gctgcatggg atccggcctc
180
tcaggcccca cggtgggtgc gggggctgtg gaaaggtctc agctgcaggg ggatgaatgt
240
gacctccagt tgcaacgtct cccccgcgt gagtgggggtt atcaggccta gctcacettg
300
tgtgcagtcg gtgtcgagtg ccacctgcgt actggatgct gctctcagtg ctgcggtgcc
360
acagcacaca aaaatagttc tcacgttgcc gtggagagac aagcagtcaa cgcagatata
420
tcctgtggca agtgatggta aatgctgtgg caagaaagca ggttctggag gtgaagggcg
480

gtgggggaga cagggcaggg aaggtgagca gcggtctgag agtcccttgt ggcacctcgt
 540
 gggcattagc caaagccgtc ctgatcccaa gggacagggc agggaaggtg agtagtggtc
 600
 cgagagtccc ttgtggcacc tcatgggcat cgggtcaaagc cgtcatgacc ccgaggatgt
 660
 gccaggagtc agggcctctc ctcctacgtg ggcctgaagg ggctgctgta attcaggagg
 720
 gtaggcttgg gatgaagggg ctggaatttc tgtctgccag cattagccta atgcaaattc
 780
 tttcctattc ttttctattg agttaaagggt cctgggtggca ttgtcgggtg gggcacattg
 840
 ctgttgtcat agggctgttt gccttgtgtt tcgtggagcc ccattgctga gcttacaacg
 900
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 934

<210> 2846

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2846

Met	Pro	Met	Arg	Cys	His	Lys	Gly	Leu	Ser	Asp	His	Tyr	Ser	Pro	Ser
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Leu	Pro	Cys	Pro	Leu	Gly	Ser	Gly	Arg	Leu	Trp	Leu	Met	Pro	Thr	Arg
			20					25						30	
Cys	His	Lys	Gly	Leu	Ser	Asp	Arg	Cys	Ser	Pro	Ser	Leu	Pro	Cys	Leu
		35					40					45			
Pro	His	Arg	Pro	Ser	Pro	Pro	Glu	Pro	Ala	Phe	Leu	Pro	Gln	His	Leu
		50				55					60				
Pro	Ser	Leu	Ala	Thr	Gly	Tyr	Ile	Cys	Val	Asp	Cys	Leu	Ser	Leu	His
65					70					75				80	
Gly	Asn	Val	Arg	Thr	Ile	Phe	Val	Cys	Cys	Gly	Thr	Ala	Ala	Leu	Arg
			85					90						95	
Ala	Ala	Ser	Ser	Thr	Gln	Val	Ala	Leu	Asp	Thr	Asp	Cys	Thr	Gln	Gly
			100					105					110		
Glu	Leu	Gly	Leu	Ile	Thr	Pro	Leu	Thr	Arg	Gly	Glu	Thr	Leu	Gln	Leu
		115					120					125			
Glu	Val	Thr	Phe	Ile	Pro	Leu	Gln	Leu	Arg	Pro	Phe	His	Ser	Pro	Arg
		130				135					140				
Thr	His	Arg	Gly	Ala											
145															

<210> 2847

<211> 2830

<212> DNA

<213> Homo sapiens

<400> 2847

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 120

cagctctcac atgaccacga atctgttggc cctcctagcc tggatgctca gcccaactca
180
aagacagaaa gatcaaaatc atatgatgag ggtctggatg attacagaga agatgcaaaa
240
ttgtccttta agcacgtatc tagtctgaag ggaatcaaga tcgcagacag ccaaaagtca
300
tcagaagact ctgggtccag aaaagattct tcctcagagg tcttcagtga tgctgccaag
360
gaaggggtggc ttcatttccg accccttgtc accgataagg gcaagcgagt tggtggaagt
420
attcgccat ggaaacagat gtatgttgtc cttcggggtc attcacttta cctgtacaaa
480
gataaaagag agcagacgac tccgtctgag gaagagcagc ccatcagtgt taatgcttgc
540
ttgatagaca tctcttacag tgagaccaag aggaataatg tgtttcgact caccacgtcc
600
gactgtgaat gcctgtttca ggctgaagac agagatgata tgctagcttg gatcaagacg
660
atccaggaga gcagcaacct aaacgaagag gacactggag tcactaacag ggatctaatt
720
agtcgaagaa taaaagaata caacaatctg atgagcaaag cagaacagtt gccaaaaaca
780
cctcgccaga gtctcagcat caggcaaact ttgcttgggtg ctaaatacaga gccaaagact
840
caaagccac actctccgaa ggaagagtcg gaaaggaaac ttctcagtaa agatgatacc
900
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1080
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1140
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1200
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1260
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1320
cgtctgaaaa cattaaaaag actaattcac gatttgcctg aacatcatta tgaaacactt
1380
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1440
ccaagaaacc tagcaatagt gtttgggtccc acccttggtc gaacatcaga agacaacatg
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1560
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1620
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1680
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1740

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 1800
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 1860
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 1920
 aaagaggagt ccaaaaaaga aagtgagaca ctgggcagaa aacagaagat catcattgcc
 1980
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 2040
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 2100
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 2160
 aagtcctccc acctgaaga gacaggctct gactctggca ctttgctcag cacgtcttcc
 2220
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 2340
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 2400
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 2460
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 2520
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 2580
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 2640
 cataaactca tcacatgtga tactctctcc agggaaaaat cagcgagatt caagtcagac
 2700
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 2820
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 2830

<210> 2848

<211> 856

<212> PRT

<213> Homo sapiens

<400> 2848

Xaa Asp His Asp Ile Ala His Ile Pro Ala Ser Ala Val Ile Ser Ala
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 Ser Thr Ser Gln Val Pro Ser Ile Ala Thr Val Pro Pro Cys Leu Thr
 20 25 30
 Thr Ser Ala Pro Leu Ile Arg Arg Gln Leu Ser His Asp His Glu Ser
 35 40 45
 Val Gly Pro Pro Ser Leu Asp Ala Gln Pro Asn Ser Lys Thr Glu Arg
 50 55 60
 Ser Lys Ser Tyr Asp Glu Gly Leu Asp Asp Tyr Arg Glu Asp Ala Lys

65					70					75				80	
Leu	Ser	Phe	Lys	His	Val	Ser	Ser	Leu	Lys	Gly	Ile	Lys	Ile	Ala	Asp
				85					90					95	
Ser	Gln	Lys	Ser	Ser	Glu	Asp	Ser	Gly	Ser	Arg	Lys	Asp	Ser	Ser	Ser
		100						105					110		
Glu	Val	Phe	Ser	Asp	Ala	Ala	Lys	Glu	Gly	Trp	Leu	His	Phe	Arg	Pro
		115					120					125			
Leu	Val	Thr	Asp	Lys	Gly	Lys	Arg	Val	Gly	Gly	Ser	Ile	Arg	Pro	Trp
	130					135					140				
Lys	Gln	Met	Tyr	Val	Val	Leu	Arg	Gly	His	Ser	Leu	Tyr	Leu	Tyr	Lys
145				150						155					160
Asp	Lys	Arg	Glu	Gln	Thr	Thr	Pro	Ser	Glu	Glu	Glu	Gln	Pro	Ile	Ser
			165						170					175	
Val	Asn	Ala	Cys	Leu	Ile	Asp	Ile	Ser	Tyr	Ser	Glu	Thr	Lys	Arg	Lys
		180						185					190		
Asn	Val	Phe	Arg	Leu	Thr	Thr	Ser	Asp	Cys	Glu	Cys	Leu	Phe	Gln	Ala
	195						200					205			
Glu	Asp	Arg	Asp	Asp	Met	Leu	Ala	Trp	Ile	Lys	Thr	Ile	Gln	Glu	Ser
	210				215						220				
Ser	Asn	Leu	Asn	Glu	Glu	Asp	Thr	Gly	Val	Thr	Asn	Arg	Asp	Leu	Ile
225				230						235					240
Ser	Arg	Arg	Ile	Lys	Glu	Tyr	Asn	Asn	Leu	Met	Ser	Lys	Ala	Glu	Gln
			245						250					255	
Leu	Pro	Lys	Thr	Pro	Arg	Gln	Ser	Leu	Ser	Ile	Arg	Gln	Thr	Leu	Leu
		260						265					270		
Gly	Ala	Lys	Ser	Glu	Pro	Lys	Thr	Gln	Ser	Pro	His	Ser	Pro	Lys	Glu
	275					280						285			
Glu	Ser	Glu	Arg	Lys	Leu	Leu	Ser	Lys	Asp	Asp	Thr	Ser	Pro	Pro	Lys
	290					295				300					
Asp	Lys	Gly	Thr	Trp	Arg	Lys	Gly	Ile	Pro	Ser	Ile	Met	Arg	Lys	Thr
305				310						315					320
Phe	Glu	Lys	Lys	Pro	Thr	Ala	Thr	Gly	Thr	Phe	Gly	Val	Arg	Leu	Asp
			325						330					335	
Asp	Cys	Pro	Pro	Ala	His	Thr	Asn	Arg	Tyr	Ile	Pro	Leu	Ile	Val	Asp
		340						345					350		
Ile	Cys	Cys	Lys	Leu	Val	Glu	Glu	Arg	Gly	Leu	Glu	Tyr	Thr	Gly	Ile
	355					360						365			
Tyr	Arg	Val	Pro	Gly	Asn	Asn	Ala	Ala	Ile	Ser	Ser	Met	Gln	Glu	Glu
	370					375					380				
Leu	Asn	Lys	Gly	Met	Ala	Asp	Ile	Asp	Ile	Gln	Asp	Asp	Lys	Trp	Arg
385				390						395					400
Asp	Leu	Asn	Val	Ile	Ser	Ser	Leu	Leu	Lys	Ser	Phe	Phe	Arg	Lys	Leu
		405							410					415	
Pro	Glu	Pro	Leu	Phe	Thr	Asn	Asp	Lys	Tyr	Ala	Asp	Phe	Ile	Glu	Ala
		420						425					430		
Asn	Arg	Lys	Glu	Asp	Pro	Leu	Asp	Arg	Leu	Lys	Thr	Leu	Lys	Arg	Leu
	435					440						445			
Ile	His	Asp	Leu	Pro	Glu	His	His	Tyr	Glu	Thr	Leu	Lys	Phe	Leu	Ser
	450					455					460				
Ala	His	Leu	Lys	Thr	Val	Ala	Glu	Asn	Ser	Glu	Lys	Asn	Lys	Met	Glu
465				470						475					480
Pro	Arg	Asn	Leu	Ala	Ile	Val	Phe	Gly	Pro	Thr	Leu	Val	Arg	Thr	Ser
			485					490						495	
Glu	Asp	Asn	Met	Thr	His	Met	Val	Thr	His	Met	Pro	Asp	Gln	Tyr	Lys

	500		505		510
Ile Val Glu Thr Leu Ile Gln His	His Asp Trp Phe Phe Thr Glu Glu				
515	520	525			
Gly Ala Glu Glu Pro Leu Thr Thr Val Gln Glu Glu Ser Thr Val Asp					
530	535	540			
Ser Gln Pro Val Pro Asn Ile Asp His Leu Leu Thr Asn Ile Gly Arg					
545	550	555			560
Thr Gly Val Ser Pro Gly Asp Val Ser Asp Ser Ala Thr Ser Asp Ser					
565	570	575			
Thr Lys Ser Lys Gly Ser Trp Gly Ser Gly Lys Asp Gln Tyr Ser Arg					
580	585	590			
Glu Leu Leu Val Ser Ser Ile Phe Ala Ala Ala Ser Arg Lys Arg Lys					
595	600	605			
Lys Pro Lys Glu Lys Ala Gln Pro Ser Ser Ser Glu Asp Glu Leu Asp					
610	615	620			
Asn Val Phe Phe Lys Lys Glu Asn Val Glu Gln Cys His Asn Asp Thr					
625	630	635			640
Lys Glu Glu Ser Lys Lys Glu Ser Glu Thr Leu Gly Arg Lys Gln Lys					
645	650	655			
Ile Ile Ile Ala Lys Glu Asn Ser Thr Arg Lys Asp Pro Ser Thr Thr					
660	665	670			
Lys Asp Glu Lys Ile Ser Leu Gly Lys Glu Ser Thr Pro Ser Glu Glu					
675	680	685			
Pro Ser Pro Pro His Asn Ser Lys His Asn Lys Ser Pro Thr Leu Ser					
690	695	700			
Cys Arg Phe Ala Ile Leu Lys Glu Ser Pro Arg Ser Leu Leu Ala Gln					
705	710	715			720
Lys Ser Ser His Leu Glu Glu Thr Gly Ser Asp Ser Gly Thr Leu Leu					
725	730	735			
Ser Thr Ser Ser Gln Ala Ser Leu Ala Arg Phe Ser Met Lys Lys Ser					
740	745	750			
Thr Ser Pro Glu Thr Lys His Ser Glu Phe Leu Ala Asn Val Ser Thr					
755	760	765			
Ile Thr Ser Asp Tyr Ser Thr Thr Ser Ser Ala Thr Tyr Leu Thr Ser					
770	775	780			
Leu Asp Ser Ser Arg Leu Ser Pro Glu Val Gln Ser Val Ala Glu Ser					
785	790	795			800
Lys Gly Asp Glu Ala Asp Asp Glu Arg Ser Glu Leu Ile Ser Glu Gly					
805	810	815			
Arg Pro Val Glu Thr Asp Ser Gly Asn Glu Phe Pro Ile Phe Pro Thr					
820	825	830			
Ala Leu Thr Ser Glu Arg Leu Phe Arg Gly Glu Leu Gln Lys Val Thr					
835	840	845			
Lys Ser Ser Arg Arg Asn Ser Glu					
850	855				

<210> 2849

<211> 380

<212> DNA

<213> Homo sapiens

<400> 2849

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 120
 caggagagag aagaaacagg ccagctgtga gaagccaagg acaccgagtc ggtcatggca
 180
 cctaaggcgg caaagggggc caagccagag ccagcaccag ctccacctcc acccggggcc
 240
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 360
 ggcacgaagg aggggtgtcg
 380

<210> 2850

<211> 76

<212> PRT

<213> Homo sapiens

<400> 2850

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Ala	Lys	Pro	Glu	Pro	Ala	Pro	Ala	Pro	Pro	Pro	Pro	Gly	Ala	Lys	Pro
			20					25				30			
Glu	Glu	Asp	Lys	Lys	Asp	Gly	Lys	Glu	Pro	Ser	Asp	Lys	Pro	Gln	Lys
		35				40					45				
Ala	Val	Gln	Asp	His	Lys	Glu	Pro	Ser	Asp	Lys	Pro	Gln	Lys	Ala	Val
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Gln	Pro	Lys	His	Glu	Val	Gly	Thr	Lys	Glu	Gly	Cys				
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<210> 2851

<211> 2459

<212> DNA

<213> Homo sapiens

<400> 2851

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 120
 tatggaaaat atgaaggact aacaaagaat tacatggatt atttatcccg actatatgaa
 180
 agagaaatca aagatttctt tgaagttgca aagatcaaga tgactggcac aactaaagaa
 240
 agcaagaagt ttggtcttca tggaagttcg gggaaattaa ctggatctac ttctagtcta
 300
 aataagctca gtgttcagag ttcagggaat cgcagatctc agtcatcttc cctgttggat
 360
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 420
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 480
 aaatttttca aactacagca acatcaaagt gtgcctggaa ctatgaaatt ttaagactga
 540

gcaggctttt gctatatcaa tactagtcaa attgttggtc ttttattatg taaagtgcct
600
gaataatfff tgcaggctga agcagaggac ctggatggag gaacattatc acggcaacat
660
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720
aaaatatttc gctgcattga gccagagctg aacaacctaa ttgcattagg agacaaaatt
780
gatagcttta actctcttta tatgttagtc aaaatgagtc atcatgtgtg gactgcacaa
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960
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1200
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1320
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1380
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1500
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1560
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1620
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1680
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1740
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1860
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1980
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2040
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2100
atgatcattt gtgaacttag atttttgagg attatgtgac tagtaataaa tgtgaaataa
2160

attttcaaaa aagttgacat ttgaaaaaaa aattagtaac caaataaggc aaatggaaga
 2220
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 1020
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 1560
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<210> 2856

<211> 401

<212> PRT

<213> Homo sapiens

<400> 2856

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		20						25					30		
Gln	Thr	Ile	Thr	Gly	Ser	Asp	Pro	Glu	Glu	Ala	Ile	Phe	Asp	Thr	Leu
		35				40						45			
Cys	Thr	Asp	Asp	Ser	Ser	Glu	Glu	Ala	Lys	Thr	Leu	Thr	Met	Asp	Ile
	50				55					60					
Leu	Thr	Leu	Ala	His	Thr	Ser	Thr	Glu	Ala	Lys	Gly	Leu	Ser	Ser	Glu
65				70						75					80
Ser	Ser	Ala	Ser	Ser	Asp	Gly	Pro	His	Pro	Val	Ile	Thr	Pro	Ser	Arg
			85					90						95	
Ala	Ser	Glu	Ser	Ser	Ala	Ser	Ser	Asp	Gly	Pro	His	Pro	Val	Ile	Thr
		100					105						110		
Pro	Ser	Arg	Ala	Ser	Glu	Ser	Ser	Ala	Ser	Ser	Asp	Gly	Pro	His	Pro
		115				120						125			
Val	Ile	Thr	Pro	Ser	Trp	Ser	Pro	Gly	Ser	Asp	Val	Thr	Leu	Leu	Ala
	130					135					140				
Glu	Ala	Leu	Val	Thr	Val	Thr	Asn	Ile	Glu	Val	Ile	Asn	Cys	Ser	Ile
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Thr	Glu	Ile	Glu	Thr	Thr	Thr	Ser	Ser	Ile	Pro	Gly	Ala	Ser	Asp	Thr

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Pro	Ala	Leu	Pro	Asp	Ser	Xaa	Leu	Lys	Gln	Asn	His	Thr	Ser	Leu	Arg																	
															195							200							205			
Ser	Xaa	Ala	Ser	Ala	Glu	Thr	Leu	Ser	Thr	Ala	Gly	Thr	Thr	Glu	Ser																	
															210							215							220			
Ala	Ala	Pro	Asp	Ala	Thr	Val	Gly	Thr	Pro	Leu	Pro	Thr	Asn	Ser	Thr																	
225																230							235							240		
Ile	Glu	Arg	Glu	Val	Thr	Ala	Pro	Arg	Ala	Thr	Thr	Leu	Ser	Gly	Ala																	
															245							250							255			
Leu	Val	Thr	Val	Ser	Arg	Asn	Pro	Leu	Glu	Glu	Thr	Ser	Ala	Leu	Ser																	
															260							265							270			
Val	Glu	Thr	Pro	Ser	Tyr	Val	Lys	Val	Ser	Gly	Ala	Ala	Pro	Val	Ser																	
															275							280							285			
Ile	Glu	Ala	Gly	Ser	Ala	Val	Gly	Lys	Thr	Thr	Ser	Phe	Ala	Gly	Ser																	
															290							295							300			
Ser	Ala	Ser	Ser	Tyr	Ser	Pro	Ser	Glu	Ala	Ala	Leu	Lys	Asn	Phe	Thr																	
305																310							315							320		
Pro	Ser	Glu	Thr	Pro	Met	Asp	Ile	Ala	Thr	Lys	Gly	Pro	Phe	Pro																		
															325							330							335			
Thr	Ser	Arg	Asp	Pro	Leu	Pro	Ser	Val	Pro	Pro	Thr	Thr	Thr	Asn	Ser																	
															340							345							350			
Ser	Arg	Gly	Thr	Asn	Ser	Thr	Leu	Ala	Lys	Ile	Thr	Thr	Ser	Ala	Lys																	
															355							360							365			
Thr	Thr	Met	Lys	Pro	Pro	Thr	Ala	Thr	Pro	Thr	Thr	Ala	Arg	Thr	Arg																	
															370							375							380			
Pro	Thr	Thr	Asp	Val	Ser	Ala	Gly	Glu	Asn	Gly	Gly	Ser	Ser	Ser	Cys																	
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<210> 2857
<211> 1668
<212> DNA
<213> Homo sapiens
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240
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300
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360
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420
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480
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 660
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 780
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 840
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 960
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 1020
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 1080
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 1140
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 1200
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 1260
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 1320
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 1380
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 1560
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<210> 2858

<211> 220

<212> PRT

<213> Homo sapiens

<400> 2858

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Glu	Glu	Phe	Leu	Val	Ser	Leu	Ala	Leu	Leu	Ile	Thr	Glu	Gly	Arg	Thr
			20					25						30	
Pro	Glu	Cys	Ser	Val	Lys	Gly	Arg	Thr	Glu	Ser	Phe	His	Cys	Pro	Pro
		35					40					45			
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50	55	60
Leu Ala Gln Cys Arg	Gln Ala Arg Arg Thr Arg	Ser Glu Val Thr Leu
65	70	75
Leu Trp Lys Asn Asn	Leu Pro Ile Met Val	Glu Met Met Leu Leu Pro
85	90	95
Asp Cys Cys Tyr Ser	Asp Asp Gly Pro Thr Thr	Glu Gly Ile Asp Leu
100	105	110
Asn Asp Pro Ala Ile	Lys Gln Asp Ala Leu Leu	Glu Arg Trp Ile
115	120	125
Leu Glu Pro Val Pro	Arg Gln Asn Gly Asp Arg	Phe Ile Glu Glu Lys
130	135	140
Thr Leu Leu Leu Ala	Val Arg Ser Phe Val Phe	Phe Ser Gln Leu Ser
145	150	155
Ala Trp Leu Ser Val	Ser His Gly Ala Ile Pro	Arg Asn Ile Leu Tyr
165	170	175
Arg Ile Ser Ala Ala	Asp Val Asp Leu Gln Trp	Asn Phe Ser Gln Thr
180	185	190
Pro Ile Glu His Val	Phe Pro Val Pro Asn Val	Ser His Asn Val Ala
195	200	205
Leu Lys Val Ser Gly	Gln Ser Leu Ala Gln Thr	Ile
210	215	220

<210> 2859

<211> 1029

<212> DNA

<213> Homo sapiens

<400> 2859

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300
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420
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600
gagacacctg gggcagtctc tccaaccag cccacacctc ctcagcctca tttgcctcac
660
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720
catcagattc atcatgggca ccacctccaa catggtcacc accatccacc tcatgttgct
780

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 900
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 1029

<210> 2860

<211> 343

<212> PRT

<213> Homo sapiens

<400> 2860

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Thr	Met	His	Gln	Pro	Pro	Glu	Ser	Thr	Ala	Ala	Ala	Ala	Ala	Ala	Ala
			20					25					30		
Asp	Ile	Ser	Ala	Arg	Lys	Met	Ala	His	Pro	Ala	Met	Phe	Pro	Arg	Arg
		35					40					45			
Gly	Ser	Gly	Ser	Gly	Ser	Ala	Ser	Ala	Leu	Asn	Ala	Ala	Gly	Thr	Gly
	50					55					60				
Val	Gly	Ser	Asn	Ala	Thr	Ser	Ser	Glu	Asp	Phe	Pro	Pro	Pro	Ser	Leu
65					70					75				80	
Leu	Gln	Pro	Pro	Pro	Pro	Ala	Ala	Ser	Ser	Thr	Ser	Gly	Pro	Gln	Pro
				85					90					95	
Pro	Pro	Pro	Gln	Ser	Leu	Asn	Leu	Leu	Ser	Gln	Ala	Gln	Leu	Gln	Ala
			100					105					110		
Gln	Pro	Leu	Ala	Pro	Gly	Gly	Thr	Gln	Met	Lys	Lys	Lys	Ser	Gly	Phe
	115						120					125			
Gln	Ile	Thr	Ser	Val	Thr	Pro	Ala	Gln	Ile	Ser	Ala	Ser	Ile	Ser	Ser
	130					135					140				
Asn	Asn	Ser	Ile	Ala	Glu	Asp	Thr	Glu	Ser	Tyr	Asp	Asp	Leu	Asp	Glu
145					150					155				160	
Ser	His	Thr	Glu	Asp	Leu	Ser	Ser	Ser	Glu	Ile	Leu	Asp	Val	Ser	Leu
			165						170					175	
Ser	Arg	Ala	Thr	Asp	Leu	Gly	Glu	Pro	Glu	Arg	Ser	Ser	Ser	Glu	Glu
			180					185						190	
Thr	Leu	Asn	Asn	Phe	Gln	Glu	Ala	Glu	Thr	Pro	Gly	Ala	Val	Ser	Pro
	195						200					205			
Asn	Gln	Pro	His	Leu	Pro	Gln	Pro	His	Leu	Pro	His	Leu	Pro	Gln	Gln
	210					215					220				
Asn	Val	Val	Ile	Asn	Gly	Asn	Ala	His	Pro	His	His	Leu	His	His	His
225					230					235				240	
His	Gln	Ile	His	His	Gly	His	His	Leu	Gln	His	Gly	His	His	His	Pro
			245						250					255	
Ser	His	Val	Ala	Val	Ala	Ser	Ala	Ser	Ile	Thr	Gly	Gly	Pro	Pro	Ser
			260					265					270		
Ser	Pro	Val	Ser	Arg	Lys	Leu	Ser	Thr	Thr	Gly	Ser	Ser	Asp	Ser	Ile
	275						280					285			
Thr	Pro	Val	Ala	Pro	Thr	Ser	Ala	Val	Ser	Ser	Ser	Gly	Ser	Pro	Ala

290 295 300
 Ser Val Met Thr Asn Met Arg Ala Pro Ser Thr Thr Gly Gly Ile Gly
 305 310 315 320
 Ile Asn Ser Val Thr Gly Thr Ser Thr Val Asn Asn Val Asn Ile Thr
 325 330 335
 Ala Val Gly Ser Phe Asn Ser
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<210> 2861
 <211> 756
 <212> DNA
 <213> Homo sapiens

<400> 2861
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 180
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 240
 aaaaaactag attctactca gactacacat tcttcaagtc ttattgctgg tcacacaggg
 300
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 420
 caaggacttc agaggtaag ccagattcac acttcttctt cttcacagac ccatgtctcc
 480
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 540
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 600
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 756

<210> 2862
 <211> 252
 <212> PRT
 <213> Homo sapiens

<400> 2862
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 20 25 30
 Ser Glu Ala Leu Ala Val Ile Asn Asn Gly Asn Lys Gly Pro Pro Val
 35 40 45
 Gly Ser Arg Ile Ser Met Pro Thr Thr Lys Pro Arg Pro Gly Leu Arg

50	55	60
Glu Glu Lys Leu Ala Ser Ile Met Ser Lys Leu Pro Leu Ala Thr Pro		
65	70	75
Lys Lys Leu Asp Ser Thr Gln Thr Thr His Ser Ser Ser Leu Ile Ala		80
	85	90
Gly His Thr Gly Pro Val Pro Lys Lys Pro Gln Asp Leu Ala His Thr		95
	100	105
Gly Ile Ser Ser Gly Leu Ile Ala Gly Ser Ser Ile Gln Asn Pro Lys		110
	115	120
Val Ser Leu Glu Pro Leu Pro Ala Arg Leu Leu Gln Gln Gly Leu Gln		125
	130	135
Arg Ser Ser Gln Ile His Thr Ser Ser Ser Ser Gln Thr His Val Ser		140
145	150	155
Ser Ser Ser Gln Ala Gln Ile Ala Ala Ser Ser His Ala Leu Gly Thr		160
	165	170
Ser Glu Ala Gln Asp Ala Ser Ser Leu Thr Gln Val Thr Lys Val His		175
	180	185
Gln His Ser Ala Val Gln Gln Asn Tyr Val Ser Pro Leu Gln Ala Thr		190
	195	200
Ile Ser Lys Ser Gln Thr Asn Pro Val Val Lys Leu Ser Asn Asn Pro		205
	210	215
Gln Leu Ser Cys Ser Ser Ser Leu Ile Lys Thr Ser Asp Lys Pro Leu		220
225	230	235
Met Tyr Arg Leu Pro Leu Ser Thr Pro Phe Thr Arg		240
	245	250

<210> 2863

<211> 711

<212> DNA

<213> Homo sapiens

<400> 2863

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120
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180
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240
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<210> 2864

<211> 237

<212> PRT

<213> Homo sapiens

<400> 2864

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			20					25					30		
Ser	Gly	Arg	Ile	Val	Trp	Ser	Pro	Ala	Val	Pro	Gly	Ile	Pro	Val	Arg
			35				40					45			
Ser	Ser	Ser	Leu	Pro	Leu	Phe	Ser	Asp	Ala	Met	Pro	Ala	Pro	Thr	Gln
			50			55					60				
Leu	Phe	Phe	Pro	Leu	Ile	Arg	Asn	Cys	Glu	Leu	Ser	Arg	Ile	Tyr	Gly
65					70					75					80
Thr	Ala	Cys	Tyr	Cys	His	His	Lys	His	Leu	Cys	Cys	Ser	Ser	Ser	Tyr
				85					90					95	
Ile	Pro	Gln	Ser	Arg	Leu	Arg	Tyr	Thr	Pro	His	Pro	Ala	Tyr	Ala	Thr
			100					105					110		
Phe	Cys	Arg	Pro	Lys	Glu	Asn	Trp	Trp	Gln	Tyr	Thr	Gln	Gly	Arg	Arg
			115				120					125			
Tyr	Ala	Ser	Thr	Pro	Gln	Lys	Phe	Tyr	Leu	Thr	Pro	Pro	Gln	Val	Asn
			130			135					140				
Ser	Ile	Leu	Lys	Ala	Asn	Glu	Tyr	Ser	Phe	Lys	Val	Pro	Glu	Phe	Asp
145					150					155					160
Gly	Lys	Asn	Val	Ser	Ser	Ile	Leu	Gly	Phe	Asp	Ser	Asn	Gln	Leu	Pro
				165					170				175		
Ala	Asn	Ala	Pro	Ile	Glu	Asp	Arg	Arg	Ser	Ala	Ala	Thr	Cys	Leu	Gln
			180					185					190		
Thr	Arg	Gly	Met	Leu	Leu	Gly	Val	Phe	Asp	Gly	His	Ala	Gly	Cys	Ala
			195				200					205			
Cys	Ser	Gln	Ala	Val	Ser	Glu	Arg	Leu	Phe	Tyr	Tyr	Ile	Ala	Val	Ser
		210				215					220				
Leu	Leu	Pro	His	Glu	Thr	Leu	Leu	Glu	Ile	Glu	Asn	Ala			
225					230					235					

<210> 2865

<211> 585

<212> DNA

<213> Homo sapiens

<400> 2865

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ctgcagtgtg aagttttgat atgtgatagc agtgaccacc agtctcgctg caatcaaggt
180
tgtgtctcca gaagcaaacg agacatttct tcatataaat ggaaaacaga ttccatcata
240

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 300
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 360
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 420
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 480
 gagacatgtt tctccaggat gccaaaggaa atgctacctc gtggctacac atattatgaa
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 585

<210> 2866
 <211> 134
 <212> PRT
 <213> Homo sapiens

<400> 2866
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 35 40 45
 Arg Asp Ile Ser Ser Tyr Lys Trp Lys Thr Asp Ser Ile Ile Gly Pro
 50 55 60
 Ile Arg Leu Lys Arg Asp Arg Ser Ala Ser Gly Asn Ser Gly Phe Gln
 65 70 75 80
 His Glu Thr His Ala Glu Glu Thr Pro Asn Gln Pro Phe Asn Ser Val
 85 90 95
 His Leu Phe Ser Phe Met Val Leu Ala Leu Asn Val Val Thr Val Ala
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<210> 2867
 <211> 444
 <212> DNA
 <213> Homo sapiens

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<210> 2868

<211> 84

<212> PRT

<213> Homo sapiens

<400> 2868

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			20					25					30		
Ala	Lys	Ala	Ser	Gly	Lys	Lys	Leu	Gln	Lys	Val	Thr	Leu	Lys	Val	Ser
		35					40					45			
Pro	Arg	Gly	Ile	Ile	Leu	His	Pro	Gly	His	His	Pro	Ala	Pro	Arg	Gln
	50					55					60				
His	Cys	Cys	His	Ser	Arg	Leu	Val	Ala	Ala	Ala	Pro	Arg	Pro	Cys	Trp
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<210> 2869

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<212> DNA

<213> Homo sapiens

<400> 2869

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<211> 258

<212> PRT

<213> Homo sapiens

<400> 2870

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			20					25					30		
Ser	Lys	Arg	Phe	Lys	Thr	Met	Ser	Pro	Ser	Gln	Met	Ile	Met	Pro	Asn
		35					40					45			
Val	Met	Glu	Met	Ile	Ala	Ala	Leu	Gly	Pro	Gly	Pro	Ser	Pro	Tyr	Pro
	50					55					60				
Leu	Pro	Pro	Pro	Pro	Gly	Gly	Thr	Asn	Ser	Asn	Asp	Tyr	Ser	Ser	Gln
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Gly	Asn	Asn	Tyr	Gln	Gly	His	Gly	Asn	Phe	Asp	Phe	Pro	His	Gly	Asn
				85					90					95	
Pro	Gly	Gly	Thr	Ser	Met	Asn	Asp	Phe	Met	His	Gly	Pro	Pro	Gln	Leu
			100					105						110	
Ser	His	Pro	Pro	Asp	Met	Pro	Asn	Asn	Met	Ala	Ala	Leu	Glu	Lys	Pro
		115					120					125			
Leu	Ser	His	Pro	Met	Gln	Glu	Thr	Met	Pro	His	Ala	Gly	Ser	Ser	Asp
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Gln	Pro	His	Pro	Ser	Ile	Gln	Gln	Gly	Leu	His	Val	Pro	His	Pro	Ser
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Ser	Gln	Ser	Gly	Pro	Pro	Leu	His	His	Ser	Gly	Ala	Pro	Pro	Pro	Pro
				165					170					175	
Pro	Ser	Gln	Pro	Pro	Arg	Gln	Pro	Pro	Gln	Ala	Ala	Pro	Ser	Ser	His
			180					185					190		
Pro	His	Ser	Asp	Leu	Thr	Phe	Asn	Pro	Ser	Ser	Ala	Leu	Glu	Gly	Gln
		195					200					205			
Ala	Gly	Ala	Gln	Gly	Ala	Ser	Asp	Met	Pro	Glu	Pro	Ser	Leu	Asp	Leu
	210					215					220				
Leu	Pro	Glu	Leu	Thr	Asn	Pro	Asp	Glu	Leu	Leu	Ser	Tyr	Leu	Asp	Pro
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Pro	Asp	Leu	Pro	Ser	Asn	Ser	Asn	Asp	Asp	Leu	Leu	Ser	Leu	Phe	Glu
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<210> 2871

<211> 786

<212> DNA

<213> Homo sapiens

<400> 2871

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<210> 2872

<211> 153

<212> PRT

<213> Homo sapiens

<400> 2872

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Phe	Gly	Glu	Pro	Tyr	Ile	Phe	Glu	Glu	Leu	Leu	Gly	Leu	Lys	Ile	Arg
			20					25					30		
Ile	Ser	Pro	Asp	Ala	Phe	Phe	Gln	Ile	Asn	Thr	Ala	Gly	Ala	Glu	Met
			35				40					45			
Leu	Tyr	Trp	Thr	Val	Gly	Glu	Leu	Thr	Gly	Val	Asn	Ser	Asp	Thr	Ile
	50					55				60					
Leu	Leu	Asp	Ile	Cys	Cys	Gly	Thr	Gly	Val	Ile	Gly	Leu	Pro	Leu	Ala
65				70					75					80	
Gln	His	Thr	Ser	Arg	Val	Leu	Gly	Ile	Glu	Leu	Leu	Glu	Gln	Ala	Val
				85				90						95	
Glu	Asp	Ala	Arg	Trp	Thr	Ala	Ala	Phe	Asn	Gly	Ile	Thr	Asn	Ser	Glu
			100					105					110		
Phe	His	Thr	Gly	Gln	Ala	Glu	Lys	Ile	Leu	Pro	Gly	Leu	Leu	Lys	Ser
			115				120						125		
Lys	Glu	Asp	Gly	Gln	Ser	Ile	Val	Ala	Val	Val	Asn	Pro	Ala	Arg	Ala

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<210> 2874
 <211> 248
 <212> PRT

<213> Homo sapiens

<400> 2874

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 Lys Leu Lys Ala Ser Ser Arg Thr Ser Ala Leu Leu Ser Gly Phe Ala
 35 40 45
 Met Val Ala Met Val Glu Val Gln Leu Asp Ala Asp His Asp Tyr Pro
 50 55 60
 Pro Gly Leu Leu Ile Ala Phe Ser Ala Cys Thr Thr Val Leu Val Ala
 65 70 75 80
 Gly His Leu Phe Ala Leu Met Ile Ser Thr Cys Ile Leu Pro Asn Ile
 85 90 95
 Glu Ala Val Ser Asn Cys Thr Ile Ser Thr Arg Lys Glu Ser Pro His
 100 105 110
 Glu Arg Met His Arg His Ile Glu Leu Ala Trp Ala Phe Ser Thr Val
 115 120 125
 Ile Gly Thr Leu Leu Phe Leu Ala Glu Val Val Leu Leu Cys Trp Val
 130 135 140
 Lys Phe Leu Pro Leu Lys Lys Gln Pro Gly Gln Pro Arg Pro Thr Ser
 145 150 155 160
 Lys Pro Pro Ala Ser Gly Ala Ala Ala Asn Val Ser Thr Ser Gly Ile
 165 170 175
 Thr Pro Gly Gln Ala Ala Ala Ile Ala Ser Thr Thr Ile Met Val Pro
 180 185 190
 Phe Gly Leu Ile Phe Ile Val Phe Ala Val His Phe Tyr Arg Ser Leu
 195 200 205
 Val Ser His Lys Thr Asp Arg Gln Phe Gln Glu Leu Asn Glu Leu Ala
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<210> 2875

<211> 593

<212> DNA

<213> Homo sapiens

<400> 2875

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<210> 2876

<211> 193

<212> PRT

<213> Homo sapiens

<400> 2876

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			20					25					30		
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<211> 1921

<212> DNA

<213> Homo sapiens

<400> 2877

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<213> Homo sapiens

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<210> 2879

<211> 1352

<212> DNA

<213> Homo sapiens

<400> 2879

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<212> DNA

<213> Homo sapiens

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<211> 96

<212> PRT

<213> Homo sapiens

<400> 2882

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Pro	Ala	Ile	Ser	Pro	Leu	Pro	Thr	Asp	Ser	Gln	Ser	Pro	Leu	Ala	Ser
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<211> 516

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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Pro	Ser	Ser	Val	Asp	Thr	Tyr	Pro	Tyr	Gly	Leu	Pro	Thr	Pro	Pro	Glu
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Met	Ser	Pro	Leu	Asp	Val	Leu	Glu	Pro	Glu	Gln	Thr	Phe	Phe	Ser	Ser
	50				55				60						
Pro	Cys	Gln	Glu	Glu	His	Gly	His	Pro	Arg	Arg	Ile	Pro	His	Leu	Pro
65					70				75					80	
Gly	His	Pro	Tyr	Ser	Pro	Glu	Tyr	Ala	Pro	Ser	Pro	Leu	His	Cys	Ser
			85					90				95			
His	Pro	Leu	Gly	Ser	Leu	Ala	Leu	Gly	Gln	Ser	Pro	Gly	Val	Ser	Met
		100						105				110			
Met	Ser	Pro	Val	Pro	Gly	Cys	Pro	Ser	Pro	Ala	Tyr	Ser	Ser	Pro	
		115				120					125				
Ala	Thr	Tyr	His	Pro	Leu	His	Ser	Asn	Leu	Gln	Ala	His	Leu	Gly	Gln
	130					135					140				
Leu	Ser	Pro	Pro	Pro	Glu	His	Pro	Gly	Phe	Asp	Ala	Leu	Asp	Gln	Leu
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			165					170							

<210> 2885

<211> 807

<212> DNA

<213> Homo sapiens

<400> 2885

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 aagcaaaagg aaactataaa agcctttcta aagaaactag aagccctcat agcaagcaat
 180
 gacaatgcca ataaaacctg caagatgatg ttagccacag aagaaacctc tcctgacctt
 240
 gttggaatca aaagggaactt ggaggcctta agcaaacaat gcaacaagtt actggaccga
 300

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 360
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 420
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<210> 2886

<211> 269

<212> PRT

<213> Homo sapiens

<400> 2886

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		20						25					30		
Gly	Arg	Asp	Ala	Glu	Thr	Leu	Gln	Lys	Gln	Lys	Glu	Thr	Ile	Lys	Ala
	35					40						45			
Phe	Leu	Lys	Lys	Leu	Glu	Ala	Leu	Ile	Ala	Ser	Asn	Asp	Asn	Ala	Asn
	50					55					60				
Lys	Thr	Cys	Lys	Met	Met	Leu	Ala	Thr	Glu	Glu	Thr	Ser	Pro	Asp	Leu
65					70					75					80
Val	Gly	Ile	Lys	Arg	Asp	Leu	Glu	Ala	Leu	Ser	Lys	Gln	Cys	Asn	Lys
			85						90					95	
Leu	Leu	Asp	Arg	Ala	Gln	Ala	Arg	Glu	Glu	Gln	Val	Glu	Gly	Thr	Ile
		100						105					110		
Lys	Arg	Leu	Glu	Glu	Phe	Tyr	Ser	Lys	Leu	Lys	Glu	Phe	Ser	Ile	Leu
	115						120						125		
Leu	Gln	Lys	Ala	Glu	Glu	His	Glu	Glu	Ser	Gln	Gly	Pro	Val	Gly	Met
	130					135					140				
Glu	Thr	Glu	Thr	Ile	Asn	Gln	Gln	Leu	Asn	Met	Phe	Lys	Val	Phe	Gln
145					150					155					160
Lys	Glu	Glu	Ile	Glu	Pro	Leu	Gln	Gly	Lys	Gln	Gln	Asp	Val	Asn	Trp
			165					170						175	
Leu	Gly	Gln	Gly	Leu	Ile	Gln	Ser	Ala	Ala	Lys	Ser	Thr	Ser	Thr	Gln
		180						185					190		
Gly	Leu	Glu	His	Asp	Leu	Asp	Asp	Val	Asn	Ala	Arg	Trp	Lys	Thr	Leu
	195					200							205		
Asn	Lys	Lys	Val	Ala	Gln	Arg	Ala	Ala	Gln	Leu	Gln	Glu	Ala	Leu	Leu
	210					215							220		
His	Cys	Gly	Arg	Phe	Gln	Asp	Ala	Leu	Glu	Ser	Leu	Leu	Ser	Trp	Met

225					230				235					240	
Val	Asp	Thr	Glu	Glu	Leu	Val	Ala	Asn	Gln	Lys	Pro	Pro	Ser	Ala	Glu
				245					250					255	
Phe	Lys	Val	Val	Lys	Asp	Lys	Ile	Gln	Glu	Gln	Lys	Leu			
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<210> 2887
<211> 1945
<212> DNA
<213> Homo sapiens
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240
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1200
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1260

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 1440
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 1500
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 1620
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 1800
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 1920
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<210> 2888

<211> 315

<212> PRT

<213> Homo sapiens

<400> 2888

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			20					25					30		
Thr	Arg	Ser	Met	Leu	Lys	Met	Thr	Thr	Ser	Ile	Asn	Arg	Arg	Ser	Arg
			35				40					45			
Thr	Ser	Thr	Lys	Ser	Thr	Arg	Thr	Ser	Ala	Arg	Pro	Gly	Leu	Thr	Ala
			50			55					60				
Thr	Val	Ser	Ile	Gly	Leu	Ser	Asp	Ser	Pro	Thr	Trp	Arg	His	Cys	Trp
65					70				75					80	
Met	Thr	Ala	Arg	Ser	Cys	Ser	Gly	Glu	Lys	Gly	Gly	His	Trp	Ala	Pro
				85				90						95	
Arg	Gln	Val	Gly	Val	Tyr	Leu	Leu	Pro	Gly	Arg	Val	Gly	Cys	Val	Ser
			100					105				110			
Ser	Arg	Val	Ser	Pro	Ser	Phe	Pro	Gly	Asp	Gly	Leu	Asp	Ser	Gly	Leu
			115				120				125				
Ala	Arg	Arg	Gly	Ser	Ala	Val	Ser	Ala	Leu	Ala	Ser	Gly	Leu	Val	Glu
			130			135					140				
Glu	Pro	Met	Leu	Gly	Pro	Pro	Phe	His	Pro	Thr	Pro	Arg	Phe	Lys	Ala
145					150				155					160	
Val	Ser	Ala	Lys	Ser	Lys	Glu	Asp	Leu	Val	Ser	Gln	Gly	Phe	Thr	Glu
				165				170						175	
Phe	Thr	Ile	Glu	Asp	Phe	His	Asn	Thr	Phe	Met	Asp	Leu	Ile	Glu	Gln

<400> 2890
Val His Leu Pro Glu Val Gln Leu Pro Lys Val Ser Glu Ile Arg Leu

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      20           25           30
Pro Glu Val Lys Leu Pro Arg Ala Pro Glu Val Gln Leu Lys Ala Thr
      35           40           45
Lys Ala Glu Gln Ala Glu Gly Met Glu Phe Gly Phe Lys Met Pro Lys
      50           55           60
Met Thr Met Pro Lys Leu Gly Arg Ala Glu Ser Pro Ser Arg Gly Lys
      65           70           75           80
Pro Gly Glu Ala Gly Ala Glu Val Ser Gly Lys Leu Val Thr Leu Pro
      85           90           95
Cys Leu Gln Pro Glu Val Asp Gly Glu Ala His Val Gly Val Pro Ser
      100          105          110
Leu Thr Leu Pro Ser Val Glu Leu Asp Leu Pro Gly Ala Leu Gly Leu
      115          120          125
Gln Gly Gln Val Pro Ala Ala Lys Met Gly Lys Gly Glu Arg Ala Glu
      130          135          140
Gly Pro Glu Val Ala Ala Gly Val Arg Glu Val Gly Phe Arg Val Pro
      145          150          155          160
Ser Val Glu Ile Val Thr Pro Gln Leu Pro Ala Val Glu Ile Glu Glu
      165          170          175
Gly Arg Leu Glu Met Ile Glu Thr Lys Val Lys Pro Ser Ser Lys Phe
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Ser Leu Pro Lys Phe Gly Leu Ser Gly Pro Lys Val
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<210> 2891

<211> 565

<212> DNA

<213> Homo sapiens

<400> 2891

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ccaaccaacc aacaaaacta aaagtgatac tgacacagtt caggtgataa gcaggaaaat
180
gggattatca gacaccggct ctttggcaca cactgccaag tcagcccttc tgcccagtct
240
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360
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420
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480
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565

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<210> 2892

<211> 90
 <212> PRT
 <213> Homo sapiens

<400> 2892
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 Arg Leu Cys Arg Ala Leu Ser Lys Thr Pro Leu Gln His Gln Leu His
 20 25 30
 Ser Thr Ser Tyr Arg Lys Ala Leu Pro Ile Leu Arg Pro Ser Ser Arg
 35 40 45
 Arg Glu Ala Gly Pro Leu His His Ile Asp Leu Arg Arg Cys Phe Ser
 50 55 60
 Arg Leu Gly Arg Gly Ala Asp Phe Ala Val Cys Ala Lys Glu Pro Val
 65 70 75 80
 Ser Asp Asn Pro Ile Phe Leu Leu Ile Thr
 85 90

<210> 2893
 <211> 2270
 <212> DNA
 <213> Homo sapiens

<400> 2893
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 180
 gtaggagca ccctacaggc atgacttggc agctaggcca tgtttatttc ccttggtggg
 240
 gcaccgaca ggcagagttt attccctcag cttgggggtg gcagtgggtg tggtagtgct
 300
 aggggttact gcaggcaggt ttctgtttct ttgcatcccg ggactggctt gttctcacct
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 420
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 480
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 600
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 720
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 1980
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 2270

<210> 2894

<211> 490

<212> PRT

<213> Homo sapiens

<400> 2894

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			20					25					30
Gln	Val	Ser	Val	Ser	Leu	His	Pro	Gly	Thr	Gly	Leu	Phe	Ser
		35					40					45	
Cys	Ser	Val	Pro	Leu	Trp	Cys	Ile	Tyr	Phe	Leu	Ser	Phe	Cys
		50				55					60		Ile
Leu	Ser	Leu	Pro	Ser	Ala	Ser	Leu	His	Leu	Cys	Leu	Ser	Cys
65					70					75			80
Phe	Leu	Asn	Leu	Asp	Cys	Pro	Cys	Leu	Phe	Leu	Cys	His	Ser
				85					90				95
Ser	Pro	Ser	Val	Cys	Gly	Ser	Ala	Ser	Leu	Ser	His	Ser	Pro
			100					105					110
Trp	Pro	Leu	Pro	Ala	Gln	Thr	Phe	Leu	Asp	Glu	Leu	His	Glu
		115						120				125	Thr
Gln	Leu	His	Ser	Met	Ser	Thr	Trp	Met	Glu	Leu	Tyr	Pro	Ala
		130				135					140		Val
Thr	Asp	Val	Arg	Phe	Ala	Asn	Met	Leu	Gly	Gln	Pro	Gly	Ser
145					150					155			160
Leu	Asp	Leu	Phe	Lys	Phe	Tyr	Val	Glu	Glu	Leu	Lys	Ala	Arg
				165					170				175
Asp	Glu	Lys	Lys	Ile	Ile	Lys	Asp	Ile	Leu	Lys	Asp	Arg	Gly
			180					185				190	Phe
Val	Glu	Val	Asn	Thr	Ala	Phe	Glu	Asp	Phe	Ala	His	Val	Ile
		195						200				205	Ser
Asp	Lys	Arg	Ala	Ala	Ala	Leu	Asp	Ala	Gly	Asn	Ile	Lys	Leu
		210				215					220		Thr
Asn	Ser	Leu	Leu	Glu	Lys	Ala	Glu	Ala	Arg	Glu	Arg	Glu	Arg
225					230					235			240
Glu	Glu	Ala	Arg	Arg	Met	Arg	Arg	Arg	Glu	Ala	Ala	Phe	Arg
				245						250			255
Leu	Arg	Gln	Ala	Val	Pro	Ala	Leu	Glu	Leu	Gly	Thr	Ala	Trp
			260					265				270	Glu
Val	Arg	Glu	Arg	Phe	Val	Cys	Asp	Ser	Ala	Phe	Glu	Gln	Ile
		275					280				285		Thr
Glu	Ser	Glu	Arg	Ile	Arg	Leu	Phe	Arg	Glu	Phe	Leu	Gln	Val
		290				295					300		Leu
Thr	Glu	Cys	Gln	His	Leu	His	Thr	Lys	Gly	Arg	Lys	His	Gly
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Gly	Lys	Lys	His	His	His	Lys	Arg	Ser	His	Ser	Pro	Ser	Gly
				325					330				335
Ser	Glu	Glu	Glu	Glu	Leu	Pro	Pro	Pro	Ser	Leu	Arg	Pro	Pro
			340					345				350	Lys
Arg	Arg	Arg	Asn	Pro	Ser	Glu	Ser	Gly	Ser	Glu	Pro	Ser	Ser
		355					360				365		Leu
Asp	Ser	Val	Glu	Ser	Gly	Gly	Ala	Ala	Leu	Gly	Gly	Arg	Gly
		370				375					380		Ser
Ser	Ser	His	Leu	Leu	Gly	Ala	Asp	His	Gly	Leu	Arg	Lys	Ala
385					390					395			Lys
Pro	Lys	Lys	Lys	Thr	Lys	Lys	Arg	Arg	His	Lys	Ser	Asn	Ser
				405					410				415
Ser	Glu	Thr	Asp	Pro	Glu	Glu	Lys	Ala	Gly	Lys	Glu	Ser	Asp
			420					425				430	Glu
Glu	Gln	Glu	Gln	Asp	Lys	Asp	Arg	Glu	Leu	Gln	Gln	Ala	Glu
													Leu

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<210> 2895
<211> 697
<212> DNA
<213> Homo sapiens
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<210> 2896
<211> 174
<212> PRT
<213> Homo sapiens
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2128

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      85          90          95
Leu Pro Pro Asp Arg Pro Arg Pro Pro Ala Arg Arg His Ser Phe Arg
      100         105         110
Gly Pro Ala Leu Arg Ser Gly Pro Pro Leu Pro Pro Pro Arg Arg
      115         120         125
Pro Leu Leu Arg Pro Pro Val Ala Ala Ala Leu Pro Pro Gln Pro Ala
      130         135         140
Pro Ser Leu Pro Ala Ser Arg Ala His Ser Cys Pro Gly Arg Pro Arg
145         150         155         160
Leu Gly Gly Val Glu Gln Pro Leu Glu Val Leu Gly Asp Ala
      165         170

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<210> 2897

<211> 3184

<212> DNA

<213> Homo sapiens

<400> 2897

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180
ctttttcagg ctaagacaat gcatagcttt tggttgatac aggtaaccct ggttaccact
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1020

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<210> 2898

<211> 933

<212> PRT

<213> Homo sapiens

<400> 2898

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			20					25					30		
Asn	Glu	Cys	Val	Gln	Cys	Glu	Phe	Asn	Phe	Ile	Asn	Thr	Gly	Lys	Phe
		35					40					45			
Thr	Phe	Ser	Phe	Gln	Ala	Gln	Leu	Cys	Gly	Ser	Lys	Thr	Leu	Leu	Gln
		50				55					60				
Tyr	Leu	Glu	Phe	Ser	Pro	Ile	Asp	Ser	Thr	Val	Asp	Val	Gly	Gln	Ser
65					70				75					80	
Val	His	Ala	Thr	Leu	Ser	Phe	Gln	Pro	Leu	Lys	Lys	Cys	Val	Leu	Thr
			85					90					95		
Asp	Leu	Glu	Leu	Ile	Ile	Lys	Ile	Ser	His	Gly	Pro	Thr	Phe	Met	Cys
			100					105					110		
Asn	Ile	Ser	Gly	Cys	Ala	Val	Ser	Pro	Ala	Ile	His	Phe	Ser	Phe	Thr
		115					120					125			
Ser	Tyr	Asn	Phe	Gly	Thr	Cys	Phe	Ile	Tyr	Gln	Ala	Gly	Met	Pro	Pro
		130				135					140				
Tyr	Lys	Gln	Thr	Leu	Val	Ile	Thr	Asn	Lys	Glu	Glu	Thr	Pro	Met	Ser
145				150					155					160	
Ile	Asp	Cys	Leu	Tyr	Thr	Asn	Thr	Thr	His	Leu	Glu	Val	Asn	Ser	Arg
			165					170					175		
Val	Asp	Val	Val	Lys	Pro	Gly	Asn	Thr	Leu	Glu	Ile	Pro	Ile	Thr	Phe
		180					185					190			
Tyr	Pro	Arg	Glu	Ser	Ile	Asn	Tyr	Gln	Glu	Leu	Ile	Pro	Phe	Glu	Ile
		195				200						205			
Asn	Gly	Leu	Ser	Gln	Gln	Thr	Val	Glu	Ile	Lys	Gly	Lys	Gly	Thr	Glu

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      210              215              220
Met Lys Ile Leu Val Leu Asp Pro Ala Asn Arg Ile Val Lys Leu Gly
225              230              235              240
Ala Val Leu Pro Gly Gln Val Val Lys Arg Thr Val Ser Ile Met Asn
      245              250              255
Asn Ser Leu Ala Gln Leu Thr Phe Asn Gln Ser Ile Leu Phe Thr Ile
      260              265              270
Pro Glu Leu Gln Glu Pro Lys Val Leu Thr Leu Ala Pro Phe His Asn
      275              280              285
Ile Thr Leu Lys Pro Lys Glu Val Cys Lys Leu Glu Val Ile Phe Ala
      290              295              300
Pro Lys Lys Arg Val Pro Phe Ser Glu Glu Val Phe Met Glu Cys
305              310              315              320
Met Gly Leu Leu Arg Pro Leu Phe Leu Leu Ser Gly Cys Cys Gln Ala
      325              330              335
Leu Glu Ile Ser Leu Asp Gln Glu His Ile Pro Phe Gly Pro Val Val
      340              345              350
Tyr Gln Thr Gln Ala Thr Arg Arg Ile Leu Met Leu Asn Thr Gly Asp
      355              360              365
Val Gly Ala Arg Phe Lys Trp Asp Ile Lys Lys Phe Glu Pro His Phe
      370              375              380
Ser Ile Ser Pro Glu Glu Gly Tyr Ile Thr Ser Gly Met Glu Val Ser
385              390              395              400
Phe Glu Val Thr Tyr His Pro Thr Glu Val Gly Lys Glu Ser Leu Cys
      405              410              415
Lys Asn Ile Leu Cys Tyr Ile Gln Gly Gly Ser Pro Leu Ser Leu Thr
      420              425              430
Leu Ser Gly Val Cys Val Gly Pro Pro Ala Val Lys Glu Val Val Asn
      435              440              445
Phe Thr Cys Gln Val Arg Ser Lys His Thr Gln Thr Ile Leu Leu Ser
      450              455              460
Asn Arg Thr Asn Gln Thr Trp Asn Leu His Pro Ile Phe Glu Gly Glu
465              470              475              480
His Trp Glu Gly Pro Glu Phe Ile Thr Leu Glu Ala His Gln Gln Asn
      485              490              495
Lys Pro Tyr Glu Ile Thr Tyr Arg Pro Arg Thr Met Asn Leu Glu Asn
      500              505              510
Arg Lys His Gln Gly Thr Leu Phe Phe Pro Leu Pro Asp Gly Thr Gly
      515              520              525
Trp Leu Tyr Ala Leu His Gly Thr Ser Glu Leu Pro Lys Ala Val Ala
      530              535              540
Asn Ile Tyr Arg Glu Val Pro Cys Lys Thr Pro Tyr Thr Glu Leu Leu
545              550              555              560
Pro Ile Thr Asn Trp Leu Asn Lys Pro Gln Arg Phe Arg Val Ile Val
      565              570              575
Glu Ile Leu Lys Pro Glu Lys Pro Asp Leu Ser Ile Thr Met Lys Gly
      580              585              590
Leu Asp Tyr Ile Asp Val Leu Ser Gly Ser Lys Lys Asp Tyr Lys Leu
      595              600              605
Asn Phe Phe Ser His Lys Glu Gly Thr Tyr Ala Ala Lys Val Ile Phe
      610              615              620
Arg Asn Glu Val Thr Asn Glu Phe Leu Tyr Tyr Asn Val Ser Phe Arg
625              630              635              640
Val Ile Pro Ser Gly Ile Ile Lys Thr Ile Glu Met Val Thr Pro Val

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[illegible]

<210> 2899

<211> 876

<212> DNA

<213> Homo sapiens

<400> 2899

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120

gagctgcact gccgaatgtc gtagccacta gccacatagg ctgttgattg cttgaaatgt
180

gactagtctg aattgagaaa tactcccaac aggggcacaa aacgtccccc ggatgatgag
240

gaagaagaac tgaagacacg ccgcaagcaa actggtactc gagaacgcgg ccgctatcgg
300

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 480
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 gtacagtgcg ttctcggtt gctcggacac gataatacag atgtgtccat agctgtggtc
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 720
 gtgctcatcg atgctctggt ggatgggcag gtggtagcac tgctggtaca gaatctggag
 780
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 876

<210> 2900

<211> 189

<212> PRT

<213> Homo sapiens

<400> 2900

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Ile	Ile	Asp	Arg	Asp	Gly	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Pro	Leu
			20					25					30		
Asp	Glu	Ser	Ser	Val	Lys	Lys	Met	Ile	Leu	Thr	Phe	Glu	Lys	Arg	Ser
	35						40					45			
Tyr	Lys	Asn	Gln	Glu	Leu	Arg	Ile	Lys	Phe	Pro	Asp	Asn	Pro	Glu	Lys
	50					55					60				
Phe	Met	Glu	Ser	Glu	Leu	Asp	Leu	Asn	Asp	Ile	Ile	Gln	Glu	Met	His
65					70					75				80	
Val	Val	Ala	Thr	Met	Pro	Asp	Leu	Tyr	His	Leu	Leu	Val	Glu	Leu	Asn
				85					90					95	
Ala	Val	Gln	Ser	Leu	Leu	Gly	Leu	Leu	Gly	His	Asp	Asn	Thr	Asp	Val
			100					105					110		
Ser	Ile	Ala	Val	Val	Asp	Leu	Leu	Gln	Glu	Leu	Thr	Asp	Ile	Asp	Thr
	115					120						125			
Leu	His	Glu	Ser	Glu	Glu	Gly	Ala	Glu	Val	Leu	Ile	Asp	Ala	Leu	Val
	130					135					140				
Asp	Gly	Gln	Val	Val	Ala	Leu	Leu	Val	Gln	Asn	Leu	Glu	Arg	Leu	Asp
145					150					155				160	
Glu	Ser	Val	Lys	Glu	Glu	Ala	Asp	Gly	Val	His	Asn	Thr	Leu	Ala	Ile
			165					170					175		
Val	Glu	Asn	Met	Ala	Glu	Phe	Arg	Pro	Glu	Met	Cys	Thr			
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<210> 2901

<211> 756

<212> DNA

<213> Homo sapiens

<400> 2901

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 120
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 180
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 240
 ctctttggcc cgggcaggaa gctgtctcca caggaccctt cggaggacgt gtcattcatg
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 420
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 480
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 540
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<210> 2902

<211> 158

<212> PRT

<213> Homo sapiens

<400> 2902

Thr	Arg	Arg	Arg	Gly	Ala	Phe	Asp	Phe	Phe	Glu	Lys	Gln	Asp	Gln	Val
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Ala	Glu	Glu	Gly	Pro	Pro	Val	Gln	Ser	Leu	Lys	Gly	Glu	Asp	Ala	Glu
			20					25					30		
Glu	Ser	Leu	Glu	Glu	Glu	Ala	Leu	Asp	Pro	Leu	Gly	Ile	Met	Arg	
		35				40					45				
Ser	Lys	Lys	Pro	Lys	Lys	His	Pro	Lys	Val	Ala	Val	Lys	Ala	Lys	Pro
		50				55				60					
Ser	Pro	Arg	Leu	Thr	Ile	Phe	Asp	Glu	Glu	Val	Asp	Pro	Asp	Glu	Gly
65					70					75				80	
Leu	Phe	Gly	Pro	Gly	Arg	Lys	Leu	Ser	Pro	Gln	Asp	Pro	Ser	Glu	Asp
			85						90					95	
Val	Ser	Ser	Met	Asp	Pro	Leu	Lys	Leu	Phe	Asp	Asp	Pro	Asp	Leu	Gly
			100						105					110	
Gly	Ala	Ile	Pro	Leu	Gly	Asp	Ser	Leu	Leu	Leu	Pro	Ala	Ala	Cys	Glu
		115					120					125			
Ser	Gly	Gly	Pro	Thr	Pro	Ser	Leu	Ser	His	Arg	Asp	Ala	Ser	Lys	Glu

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 Leu Phe Arg Tyr His Leu Ser Pro Ala Ala Leu Gly Gln Leu
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<210> 2903
 <211> 542
 <212> DNA
 <213> Homo sapiens

<400> 2903
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 420
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 540
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 542

<210> 2904
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 2904
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 20 25 30
 Ala Lys Leu Ala Gln Asp Phe Leu Asp Ser Gln Asn Leu Ser Ala Tyr
 35 40 45
 Asn Thr Arg Leu Phe Lys Glu Val Asp Gly Glu Gly Lys Pro Tyr Tyr
 50 55 60
 Glu Val Arg Leu Ala Ser Val Leu Gly Ser Glu Pro Ser Leu Asp Ser
 65 70 75 80
 Glu Val Thr Ser Lys Leu Lys Ser Tyr Glu Phe Arg Gly Ser Pro Phe
 85 90 95
 Gln Val Thr Arg Gly Asp Tyr Ala Pro Ile Leu Gln Lys Val Val Glu
 100 105 110
 Gln Leu Glu Lys Ala Lys Ala Tyr Ala Ala Asn Ser His Gln Gly Gln
 115 120 125
 Met Leu Ala Gln Tyr Ile Glu Ser Phe Thr Gln Gly Ser Ile Glu Ala

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      130              135              140
His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro His Arg
145              150              155              160
Gly Glu Val Arg Arg Gln Leu His Pro Thr Cys Pro Leu Leu Pro Ala
      165              170              175
Pro Pro Ser Arg
      180

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<210> 2905
 <211> 814
 <212> DNA
 <213> Homo sapiens

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<400> 2905
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ggattcctcc tctgcccagg tttctgctgt cccccaaaa gaaagacatg tagctgggca
180
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240
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300
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360
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420
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480
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720
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<210> 2906
 <211> 200
 <212> PRT
 <213> Homo sapiens

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<400> 2906
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Asn Arg Ile Pro Val Thr Arg Ser Phe Phe Cys Ile Thr Asn Ser Ala
      20          25          30
Thr Leu Phe Gln Asn Trp Val Ser Gly Phe Leu Leu Cys Pro Gly Phe

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      35              40              45
Cys Cys Pro Pro Lys Arg Lys Thr Cys Ser Trp Ala Trp Trp Tyr Thr
  50              55              60
Ser Val Val Pro Val Thr Gln Glu Ala Glu Ala Gly Gly Leu Leu Glu
  65              70              75              80
Pro Arg Cys Ser Arg Leu Gln Trp Ala Val Asn Ala Leu Leu His Ser
      85              90              95
Ser Leu Ser Asn Arg Ala Arg Pro Arg Pro Ser Ser Arg Leu Ser Ile
      100              105              110
Pro Pro Pro Gln His Pro Phe Leu Leu Glu Met Gly Phe Gly Val Val
      115              120              125
Asn Gln Ala Gln Gly Asn Leu Arg Gly Pro Ala Ser Ser Val Arg Cys
      130              135              140
Arg Arg Ser Thr Arg Pro Arg Pro Gly Ser Ala Arg Arg Glu Lys Ala
      145              150              155              160
Ala Thr Pro Gly Val Arg Glu Leu Arg Leu Glu Gly Ala Trp Gln Ala
      165              170              175
Gly Arg Gly Pro Gly Gly Gly Ser Ala Tyr Asp Arg Arg Trp Gly Glu
      180              185              190
Leu Leu Asp Val Lys Gly Pro Leu
      195              200

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<210> 2907

<211> 379

<212> DNA

<213> Homo sapiens

<400> 2907

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240
tcattacact gggaccagct ttaagcttcc ctgttcaacg cggagagctc cacagcccag
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379

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<210> 2908

<211> 113

<212> PRT

<213> Homo sapiens

<400> 2908

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Met Thr Ala Ser Leu Asn Gly Trp Val Leu Arg Asn Ser Ile Phe Thr
      20          25          30
Phe Pro Arg Leu Leu Ser Asn Phe Gln His Cys Pro Gln Asp Tyr Lys

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35			40			45									
Gly	Lys	Gly	Ile	Leu	Pro	Leu	Met	Leu	Asp	Gly	Pro	Glu	Thr	Ala	Pro
50			55			60			65			70			
Pro	Trp	Ala	His	Tyr	Thr	Gly	Thr	Ser	Phe	Lys	Leu	Pro	Cys	Ser	Thr
65			70			75			80			85			
Arg	Arg	Ala	Pro	Gln	Pro	Arg	Thr	Thr	Glu	Gln	Met	Met	Ala	Arg	Arg
85			90			95			100			105			
Pro	Gln	Asn	Pro	Asp	Arg	Pro	Ser	Trp	Leu	Ala	Leu	Ala	Asp	Ala	Thr
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Gly

<210> 2909

<211> 2420

<212> DNA

<213> Homo sapiens

<400> 2909

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<211> 153

<212> PRT

<213> Homo sapiens

<400> 2910

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Thr Glu Pro Pro Val Phe Cys Leu Arg Ala Ser Phe Met Ala Trp Thr
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Gly Asn Ala Met Cys Ser His Lys Cys Thr Thr Ile Val His Gln His
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Leu Tyr Asn Ile Lys Gly Val Ile Tyr Lys Ser Thr Ala Ile Val His
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Arg Met Val Met Ala Gly Glu Pro Arg Pro Pro Val Leu Cys Ser Phe
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Ser Thr Gly Glu His Leu Gly Ser Cys His Lys Ala Arg Gly Gly Pro
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Ser Leu Gly Leu Ser Trp Gly Arg Gln Gln Val Cys Lys Asp Ser Ser
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<210> 2911

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<212> DNA

<213> Homo sapiens

<400> 2911

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<211> 350

<212> PRT

<213> Homo sapiens

<400> 2912

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			20					25					30		
Arg	Ser	Ser	Gly	Gly	Gly	Gly	Trp	Ala	Asp	Pro	Arg	Thr	Cys	Leu	Ser
			35				40					45			
Leu	Leu	Ser	Leu	Gly	Thr	Cys	Leu	Gly	Leu	Ala	Trp	Phe	Val	Phe	Gln
			50			55					60				
Gln	Ser	Glu	Lys	Phe	Ala	Lys	Val	Glu	Asn	Gln	Tyr	Gln	Leu	Leu	Lys
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Leu	Glu	Thr	Asn	Glu	Phe	Gln	Gln	Leu	Gln	Ser	Lys	Ile	Ser	Leu	Ile
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Ser	Glu	Lys	Trp	Gln	Lys	Ser	Glu	Ala	Ile	Met	Glu	Gln	Leu	Lys	Ser
			100					105					110		
Phe	Gln	Ile	Ile	Ala	His	Leu	Lys	Arg	Leu	Gln	Glu	Glu	Ile	Asn	Glu
			115				120						125		
Val	Lys	Thr	Trp	Ser	Asn	Arg	Ile	Thr	Glu	Lys	Gln	Asp	Ile	Leu	Asn
			130			135					140				
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Thr	Asp	Ile	Arg	Arg	Ile	Ser	Gly	Leu	Val	Thr	Asp	Val	Ile	Ser	Leu
			180					185					190		
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			210			215				220					
Thr	Ala	Thr	Leu	Arg	Lys	Thr	Ala	Ser	Glu	Asn	Ser	Gln	Arg	Ile	Asn

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225          230          235          240
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Thr Val Thr Phe Ala Asn Asp Leu Lys Pro Lys Val Tyr Asn Leu Lys
          275          280          285
Lys Asp Phe Ser Arg Leu Glu Pro Leu Val Asn Asp Leu Thr Leu Arg
          290          295          300
Ile Gly Arg Leu Val Thr Asp Leu Leu Gln Arg Glu Lys Glu Ile Ala
305          310          315          320
Phe Leu Ser Glu Lys Ile Ser Asn Leu Thr Ile Val Gln Ala Glu Ile
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<211> 361

<212> DNA

<213> Homo sapiens

<400> 2913

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<211> 112

<212> PRT

<213> Homo sapiens

<400> 2914

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Trp Val Met Ile Ser Lys Arg Trp Thr Arg Glu Ala Leu Asp Gly Phe
          20          25          30
Cys Asn Met Glu Ile Gly Ile Ile Ile Arg Asn Gly Ser Gln Asp Gly
          35          40          45
Pro Glu Pro Ser Ile Ser Gly Leu Lys Lys Leu His Pro Gln Leu Ser
50          55          60
Leu Ser Glu Asp Val His Ala Pro Gln Val Ala Asn Asp Thr Glu Ala
65          70          75          80
Gly Arg Lys Leu Asp Val Gly Pro Gln Leu Leu Asp Gln Leu Ala Gln

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<211> 519

<212> PRT

<213> Homo sapiens

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			20					25					30		
Ile	Gln	Glu	Val	Glu	Leu	Lys	Ala	Ser	Ala	Ala	Asp	Arg	Glu	Ile	Tyr
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Leu	Leu	Arg	Thr	Ser	Leu	His	Arg	Glu	Arg	Glu	Gln	Ala	Gln	Gln	Leu
	50					55					60				
His	Gln	Leu	Leu	Ala	Leu	Lys	Glu	Gln	Glu	His	Arg	Lys	Glu	Leu	Glu
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Thr	Arg	Glu	Phe	Phe	Thr	Asp	Ala	Asp	Phe	Gln	Asp	Ala	Leu	Ala	Lys
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Glu	Ile	Ala	Lys	Glu	Glu	Lys	Lys	His	Glu	Gln	Met	Ile	Lys	Glu	Tyr
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Gln	Glu	Lys	Ile	Asp	Val	Leu	Ser	Gln	Gln	Tyr	Met	Asp	Leu	Glu	Asn
		115					120					125			
Glu	Phe	Arg	Ile	Ala	Leu	Thr	Val	Glu	Ala	Arg	Arg	Phe	Gln	Asp	Val
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Ala	Leu	Ile	Trp	Ala	Gln	Arg	Lys	Glu	Asn	Glu	Ser	Ser	Ser	Leu	Ile
			165						170					175	
Lys	Asp	Leu	Thr	Cys	Met	Val	Lys	Glu	Gln	Lys	Thr	Lys	Leu	Ala	Glu
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Val	Ser	Lys	Leu	Lys	Gln	Glu	Thr	Ala	Ala	Asn	Leu	Gln	Asn	Gln	Ile
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 Ile Ile Asp Asp Gln Thr Glu Thr Ile Arg Lys Leu Lys Asp Cys Leu
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 Asp Glu Val Leu Glu Lys Leu Glu Arg His Asn Glu Arg Lys Glu Lys
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 Lys Ala Tyr Ser Thr Leu Asn Arg Lys Trp His Asp Lys Gly Glu Leu
 385 390 395 400
 Leu Cys His Leu Glu Thr Gln Val Lys Glu Val Lys Glu Lys Phe Glu
 405 410 415
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 Gln Lys Asn Ala Met Glu Lys Leu His Ser Met Asp Asp Ala Phe Lys
 435 440 445
 Arg Gln Val Asp Ala Ile Val Glu Ala His Gln Ala Glu Ile Ala Gln
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 Leu Ala Asn Glu Lys Gln Lys Cys Ile Asp Ser Ala Asn Leu Lys Val
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 His Gln Ile Glu Lys Glu Met Arg Glu Leu Leu Glu Glu Thr Cys Lys
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<212> DNA

<213> Homo sapiens

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 2400
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<210> 2918

<211> 509

<212> PRT

<213> Homo sapiens

<400> 2918

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		20					25						30		
Met	Asp	Glu	Leu	Val	Pro	Leu	Gly	Glu	Leu	Thr	Lys	His	Ser	Thr	Ser
	35					40						45			
Ala	Val	Asp	Leu	Ser	Thr	Xaa	Phe	Ala	Gln	Ile	Ser	His	Thr	Ala	Arg
	50					55				60					
Gln	Leu	Asp	Trp	Pro	Asp	Pro	Glu	Glu	Ala	Phe	Met	Ile	Thr	Val	Lys
65				70					75					80	
Phe	Val	Glu	Asp	Thr	Cys	Arg	Leu	Ala	Leu	Val	Tyr	Cys	Ser	Leu	Ile
			85					90					95		
Lys	Ala	Arg	Ala	Arg	Glu	Leu	Ser	Ser	Gly	Gln	Lys	Asp	Gln	Gly	Gln
	100						105					110			
Ala	Ala	Asn	Met	Leu	Cys	Val	Val	Val	Asn	Asp	Met	Glu	Gln	Leu	Arg
	115					120						125			
Leu	Val	Ile	Gly	Lys	Leu	Pro	Ala	Gln	Leu	Ala	Trp	Glu	Ala	Leu	Glu
	130				135					140					
Gln	Arg	Val	Gly	Ala	Val	Leu	Glu	Gln	Gly	Gln	Leu	Gln	Asn	Thr	Leu
145				150					155					160	
His	Ala	Gln	Leu	Gln	Ser	Ala	Leu	Ala	Gly	Leu	Gly	His	Glu	Ile	Arg
			165					170					175		
Thr	Gly	Val	Arg	Thr	Leu	Ala	Glu	Gln	Leu	Glu	Val	Gly	Ile	Ala	Lys
	180					185						190			
His	Ile	Gln	Lys	Leu	Val	Gly	Val	Arg	Glu	Ser	Val	Leu	Pro	Glu	Asp
	195					200						205			
Ala	Ile	Leu	Pro	Leu	Met	Lys	Phe	Leu	Glu	Val	Glu	Leu	Cys	Tyr	Met

210	215	220
Asn Thr Asn Leu Val Gln Glu Asn Phe Ser Ser Leu Leu Thr Leu Leu		
225	230	235
Trp Thr His Thr Leu Thr Val Leu Val Glu Ala Ala Ala Ser Gln Arg		240
	245	250
Ser Ser Ser Leu Ala Ser Asn Arg Leu Lys Ile Ala Leu Gln Asn Leu		255
	260	265
Glu Ile Cys Phe His Ala Glu Gly Cys Gly Leu Pro Pro Lys Ala Leu		270
	275	280
His Thr Ala Thr Phe Gln Ala Leu Gln Arg Asp Leu Glu Leu Gln Ala		285
	290	295
Ala Ser Ser Arg Glu Leu Ile Arg Lys Tyr Phe Cys Ser Arg Ile Gln		300
305	310	315
Gln Gln Ala Glu Thr Thr Ser Glu Glu Leu Gly Ala Val Thr Val Lys		320
	325	330
Ala Ser Tyr Arg Ala Ser Glu Gln Lys Leu Arg Val Glu Leu Leu Ser		335
	340	345
Ala Ser Ser Leu Leu Pro Leu Asp Ser Asn Gly Ser Ser Asp Pro Phe		350
	355	360
Val Gln Leu Thr Leu Glu Pro Arg His Glu Phe Pro Glu Leu Ala Ala		365
	370	375
Arg Glu Thr Gln Lys His Lys Lys Asp Leu His Pro Leu Phe Asp Glu		380
385	390	395
Thr Phe Glu Phe Leu Val Pro Ala Glu Pro Cys Arg Lys Ala Gly Ala		400
	405	410
Cys Leu Leu Leu Thr Val Leu Asp Tyr Asp Thr Leu Gly Ala Asp Asp		415
	420	425
Leu Glu Gly Glu Ala Phe Leu Pro Leu Arg Glu Val Pro Gly Leu Ser		430
	435	440
Gly Ser Glu Glu Pro Gly Glu Val Pro Gln Thr Arg Leu Pro Leu Thr		445
	450	455
Tyr Pro Ala Pro Asn Gly Asp Pro Ile Leu Gln Leu Leu Glu Gly Arg		460
465	470	475
Lys Gly Asp Arg Glu Ala Gln Val Phe Val Arg Leu Arg Arg His Arg		480
	485	490
Ala Lys Gln Ala Ser Gln His Ala Leu Arg Pro Ala Pro		495
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<210> 2919

<211> 455

<212> DNA

<213> Homo sapiens

<400> 2919

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180
gctggctggc tcaggatggc tttacctatg tggctccttg agagatcatt gagaagacta
240
aggacatcct ggagcgcgct attcccagca gcctgggtgc cacagcactc tgtggctcgg
300

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 455

<210> 2920

<211> 143

<212> PRT

<213> Homo sapiens

<400> 2920

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Glu	Lys	Glu	Glu	Gly	Gly	Ser	Thr	Glu	Ala	Val	His	Ser	Gly	Leu	Ala
		20						25					30		
Arg	Gln	Val	Ser	Ser	Leu	Leu	Thr	Asn	His	Leu	Ala	Arg	Ala	Thr	Glu
		35					40					45			
Cys	Cys	Gly	Asn	Gln	Ala	Ala	Gly	Asn	Asp	Ala	Leu	Gln	Asp	Val	Leu
	50					55				60					
Ser	Leu	Leu	Asn	Asp	Leu	Ser	Arg	Ser	His	Ile	Gly	Lys	Ala	Ile	Leu
65					70					75				80	
Ser	Gln	Pro	Ala	Cys	Val	Ser	Lys	Leu	Leu	Ser	Leu	Leu	Leu	Asp	Gln
			85					90						95	
Arg	Pro	Ser	Pro	Lys	Leu	Val	Leu	Ile	Ile	Leu	Gln	Leu	Cys	Arg	Ala
			100					105					110		
Ala	Leu	Pro	Leu	Met	Ser	Val	Glu	Asp	Cys	Gly	Asn	Val	Glu	Leu	Pro
		115					120					125			
Pro	Trp	Ser	Tyr	Ser	Val	Pro	Ser	Leu	Asn	Ser	Glu	Gln	Glu	Asp	
	130					135					140				

<210> 2921

<211> 1855

<212> DNA

<213> Homo sapiens

<400> 2921

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 120
 gccctgaggc aacggctcat cagctcttcc tgcagactct tttttcccga ggatcctgtt
 180
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 240
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 300
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gtggtggtat tagatcatgc gtatcacggc cacctgagct ccctgattga catcagtcctc
 540
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 780
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 1440
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 1680
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 1740
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<210> 2922

<211> 452

<212> PRT

<213> Homo sapiens

<400> 2922

Met Ala Ala Asp Gln Arg Pro Lys Ala Asp Thr Leu Ala Leu Arg Gln

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Lys Ile Val Arg Ala Gln Gly Gln Tyr Met Tyr Asp Glu Gln Gly Ala
35           40           45
Glu Tyr Ile Asp Cys Ile Ser Asn Val Ala His Val Gly His Cys His
50           55           60
Pro Leu Val Val Gln Ala Ala His Glu Gln Asn Gln Val Leu Asn Thr
65           70           75           80
Asn Ser Arg Tyr Leu His Asp Asn Ile Val Asp Tyr Ala Gln Arg Leu
85           90           95
Ser Glu Thr Leu Pro Glu Gln Leu Cys Val Phe Tyr Phe Leu Asn Ser
100          105          110
Gly Ser Glu Ala Asn Asp Leu Ala Leu Arg Leu Ala Arg His Tyr Thr
115          120          125
Gly His Gln Asp Val Val Val Leu Asp His Ala Tyr His Gly His Leu
130          135          140
Ser Ser Leu Ile Asp Ile Ser Pro Tyr Lys Phe Arg Asn Leu Asp Gly
145          150          155          160
Gln Lys Glu Trp Val His Val Ala Pro Leu Pro Asp Thr Tyr Arg Gly
165          170          175
Pro Tyr Arg Xaa Arg Thr Thr Pro Thr Gln Leu Trp Xaa Tyr Ala Asn
180          185          190
Glu Val Lys Arg Val Val Ser Ser Ala Gln Glu Lys Gly Arg Lys Ile
195          200          205
Ala Ala Phe Phe Ala Glu Ser Leu Pro Ser Val Gly Gly Gln Ile Ile
210          215          220
Pro Pro Ala Gly Tyr Phe Ser Gln Val Ala Glu His Ile Arg Lys Ala
225          230          235          240
Gly Gly Val Phe Val Ala Asp Glu Ile Gln Val Gly Phe Gly Arg Val
245          250          255
Gly Lys His Phe Trp Ala Phe Gln Leu Gln Gly Lys Asp Phe Val Pro
260          265          270
Asp Ile Val Thr Met Gly Lys Ser Ile Gly Asn Gly His Pro Val Ala
275          280          285
Cys Val Ala Ala Thr Gln Pro Val Ala Arg Ala Phe Glu Ala Thr Gly
290          295          300
Val Glu Tyr Phe Asn Thr Phe Gly Gly Ser Pro Val Ser Cys Ala Val
305          310          315          320
Gly Leu Ala Val Leu Asn Val Leu Glu Lys Glu Gln Leu Gln Asp His
325          330          335
Ala Thr Ser Val Gly Ser Phe Leu Met Gln Leu Leu Trp Gln Gln Lys
340          345          350
Ile Arg His Pro Ile Val Gly Asp Val Arg Gly Val Gly Leu Phe Ile
355          360          365
Gly Val Asp Leu Ile Lys Asp Glu Ala Thr Arg Thr Pro Ala Thr Glu
370          375          380
Glu Ala Xaa Val Tyr Leu Val Ser Arg Leu Lys Glu Asn Tyr Val Leu
385          390          395          400
Leu Ser Thr Asp Gly Pro Gly Arg Asn Ile Leu Lys Phe Lys Pro Pro
405          410          415
Met Cys Phe Ser Leu Asp Asn Ala Arg Gln Val Val Ala Lys Leu Asp
420          425          430
Ala Ile Leu Thr Asp Met Glu Glu Lys Val Arg Ser Cys Glu Thr Leu

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435
Arg Leu Gln Pro
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440

445

<210> 2923
<211> 572
<212> DNA
<213> Homo sapiens

<400> 2923
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120
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180
gaaacagcgt ttattgtgga ggggagctgg gcggggctca gcctcggaga actggcagta
240
cagccgcccc agcctcggct ccacccatag ccggaacggg atctccagga tggcagagaa
300
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360
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420
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480
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572

<210> 2924
<211> 91
<212> PRT
<213> Homo sapiens

<400> 2924
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Leu Pro Arg Gly Thr Thr Leu Leu Pro Ala Lys Cys Arg Pro Ser Ser
20 25 30
Arg Arg Asn Ser Val Tyr Cys Gly Gly Glu Leu Gly Gly Ala Gln Pro
35 40 45
Arg Arg Thr Gly Ser Thr Ala Ala Pro Ala Ser Ala Pro Pro Ile Ala
50 55 60
Gly Thr Gly Ser Pro Gly Trp Gln Arg Ser Leu Gln Pro Ala Leu Gly
65 70 75 80
Pro Arg Thr Ala Ser Trp Gln Trp Trp Glu Gln
85 90

<210> 2925
<211> 1999
<212> DNA
<213> Homo sapiens

<400> 2925
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 120
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 180
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 240
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 300
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 360
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 420
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 660
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 720
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 780
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 960
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 1020
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 1200
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 1260
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<210> 2926

<211> 305

<212> PRT

<213> Homo sapiens

<400> 2926

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		20						25					30		
Ser	Gln	Val	Glu	Ser	Glu	Ser	Ser	Val	Leu	Asn	Asp	Ser	Pro	Phe	Pro
	35						40					45			
Glu	Asp	Asp	Asn	Glu	Gly	Leu	His	Ser	Asp	Ser	Arg	Glu	Glu	Lys	Gln
	50					55					60				
Asn	Thr	Lys	Ser	Ala	Arg	Glu	Arg	Ala	Gly	Gln	Asp	Met	Gly	Leu	Glu
65					70					75				80	
His	Gly	Phe	Glu	Lys	Pro	Leu	Asp	Ser	Ala	Met	Ser	Ala	Glu	Glu	Asp
			85						90					95	
Thr	Asp	Val	Arg	Gly	Arg	Arg	Lys	Lys	Lys	Thr	Pro	Arg	Lys	Ala	Glu
		100						105					110		
Asp	Thr	Arg	Glu	Asn	Arg	Lys	Leu	Glu	Asn	Lys	Asn	Ala	Phe	Leu	Glu
	115					120					125				
Lys	Lys	Thr	Val	Pro	Lys	Lys	Gln	Arg	Asn	Gln	Asp	Arg	Ser	Lys	Ser
	130					135					140				
Ala	Ala	Glu	Leu	Glu	Lys	Leu	Met	Pro	Val	Ser	Ala	Gln	Thr	Pro	Lys
145					150					155				160	
Gly	Arg	Arg	Leu	Ser	Gly	Glu	Glu	Arg	Gly	Leu	Trp	Ser	Thr	Asp	Ser
			165						170					175	
Ala	Glu	Glu	Asp	Lys	Glu	Thr	Lys	Arg	Asn	Glu	Ser	Lys	Glu	Lys	Tyr
		180						185					190		
Gln	Lys	Arg	His	Asp	Ser	Asp	Lys	Glu	Glu	Lys	Gly	Arg	Lys	Glu	Pro
	195					200					205				
Lys	Gly	Leu	Lys	Thr	Leu	Lys	Glu	Ile	Arg	Asn	Ala	Phe	Asp	Leu	Phe
	210				215						220				
Lys	Leu	Thr	Pro	Glu	Glu	Lys	Asn	Asp	Val	Ser	Glu	Asn	Asn	Arg	Lys
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<400> 2927
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<210> 2928
 <211> 292
 <212> PRT
 <213> Homo sapiens

<400> 2928

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      20              25              30
Ser Leu Arg Pro Ala Thr Phe Ser Gly Val Asn Cys Leu Ala Tyr Asp
      35              40              45
Glu Ala Ile Met Ala Gln Gln Asp Arg Ile Gln Gln Glu Ile Ala Val
      50              55              60
Gln Asn Pro Leu Val Ser Glu Arg Leu Glu Leu Ser Val Leu Tyr Lys
      65              70              75              80
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Asp Leu Val Ser Gln Gly Phe Thr Glu Phe Thr Ile Glu Asp Phe His
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Asn Thr Phe Met Asp Leu Ile Glu Gln Val Glu Lys Gln Thr Ser Val
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      195             200             205
Lys Phe Phe Glu His Phe Ile Glu Gly Gly Arg Thr Val Lys Glu Phe
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<210> 2929
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 <212> DNA
 <213> Homo sapiens

<400> 2929

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<210> 2930
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 <212> PRT
 <213> Homo sapiens

<400> 2930

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      35           40           45
Gln Lys Glu Asn Met Ile Asp Lys Asp Val Glu Leu Ser Val Val Leu
      50           55           60
Pro Gly Asp Ile Ile Lys Ser Thr Thr Val His Gly Ser Lys Pro Met
65           70           75           80
Met Asp Leu Leu Ile Phe Leu Cys Ala Gln Tyr His Leu Asn Pro Ser
      85           90           95
Ser Tyr Thr Ile Asp Leu Leu Ser Ala Glu Gln Asn His Ile Lys Phe
      100          105          110
Lys Pro Asn Thr Pro Ile Gly Met Leu Glu Val Glu Lys Val Ile Leu
      115          120          125
Lys Pro Lys Met Leu Asp Lys Lys Lys Pro Thr Pro Ile Ile Pro Glu
      130          135          140
Lys Thr Val Arg Val Val Ile Asn Phe Lys Lys Thr Gln Lys Thr Ile
145          150          155          160
Val Arg Val Ser Pro His Ala Ser Leu Gln Glu Leu Ala Pro Ile Ile
      165          170          175
Cys Ser Lys Cys Glu Phe Asp Pro Leu His Thr Leu Leu Leu Lys Asp
      180          185          190
Tyr Gln Ser Gln Glu Pro Leu Asp Leu Thr Lys Ser Leu Asn Asp Leu
      195          200          205
Gly Leu Arg Glu Leu Tyr Ala Met Asp Val Asn Arg Glu Ser Cys Gln
      210          215          220
Ile Ser Gln Asn Leu Asp Ile Met Lys Glu Lys Glu Asn Lys Gly Phe
225          230          235          240
Phe Ser Phe Phe Gln Arg Ser Lys Lys Lys Arg Asp Gln Thr Ala Ser
      245          250          255
Ala Pro Ala Thr Pro Leu Val Asn Lys His Arg Pro Thr Phe Thr Arg
      260          265          270
Ser Asn Thr Ile Ser Lys Pro Tyr Ile Ser Asn Thr Leu Pro Ser Asp
      275          280          285
Ala Pro Lys Lys Arg Arg Ala Pro Leu Pro Pro Met Pro Ala Ser Gln
      290          295          300
Ser Val Pro Gln Asp Leu Ala His Ile Gln Glu Arg Pro Ala Ser Cys
305          310          315          320
Ile Val Lys Ser Met Ser Val Asp Glu Thr Asp Lys Ser Pro Cys Glu
      325          330          335
Ala Gly Arg Val Arg Ala Gly Ser Leu Gln Leu Ser Ser Met Ser Ala
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      355          360          365
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Leu Gln Pro Val Asp Gly	Val Pro Pro Asp Ser Ala Ser Glu Ala Asn				
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Ser Gln Glu Gln Cys Thr	Ala Pro Lys Leu Met Glu Glu Thr Ser Val				
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Phe Glu Cys Pro Gly Thr	Pro Glu Ala Ala Ile Thr Ser Leu Thr Ser				
435	440	445			
Gly Ile Ser Ser Asp Tyr	Ser Leu Glu Glu Ile Asp Glu Lys Glu Glu				
450	455	460			
Leu Ser Glu Val Pro Lys	Val Glu Ala Glu Asn Ile Ser Pro Lys Ser				
465	470	475	480		
Gln Asp Ile Pro Phe Val	Ser Thr Asp Ile Ile Asn Thr Leu Lys Asn				
485	490	495			
Asp Pro Asp Ser Ala Leu	Gly Asn Gly Ser Gly Glu Phe Ser Gln Asn				
500	505	510			
Ser Met Glu Glu Lys Gln	Glu Thr Lys Ser Thr Asp Gly Gln Glu Pro				
515	520	525			
His Ser Val Val Tyr Asp	Thr Ser Asn Gly Lys Lys Val Val Asp Ser				
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Ile Arg Asn Leu Lys Ser	Leu Gly Pro Asn Gln Glu Asn Val Gln Asn				
545	550	555	560		
Glu Ile Ile Val Tyr Pro	Glu Asn Thr Glu Asp Asn Met Lys Asn Gly				
565	570	575			
Val Lys Lys Thr Glu Ile	Asn Val Glu Gly Val Ala Lys Asn Asn Asn				
580	585	590			
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595	600	605			
Asp Thr Ala Ile Ser Tyr	Lys Glu Asn His Leu Ala Ala Ser Ser Val				
610	615	620			
Pro Asp Gln Lys Leu Asn	Gln Pro Ser Ala Glu Lys Thr Lys Asp Ala				
625	630	635	640		
Ala Ile Gln Thr Thr Pro	Ser Cys Asn Ser Phe Asp Gly Lys His Gln				
645	650	655			
Asp His Asn Leu Ser Asp	Ser Lys Val Glu Glu Cys Val Gln Thr Ser				
660	665	670			
Asn Asn Asn Ile Ser Thr	Gln His Ser Cys Leu Ser Ser Gln Asp Ser				
675	680	685			
Val Asn Thr Ser Arg Glu	Phe Arg Ser Gln Gly Thr Leu Ile Ile His				
690	695	700			
Ser Glu Asp Pro Leu Thr	Val Lys Asp Pro Ile Cys Ala His Gly Asn				
705	710	715	720		
Asp Asp Leu Leu Pro Pro	Val Asp Arg Ile Asp Lys Asn Ser Thr Ala				
725	730	735			
Ser Tyr Leu Lys Asn Tyr	Pro Leu Tyr Arg Gln Asp Tyr Asn Pro Lys				
740	745	750			
Pro Lys Pro Ser Asn Glu	Ile Thr Arg Glu Tyr Ile Pro Lys Ile Gly				
755	760	765			
Met Thr Thr Tyr Lys Ile	Val Pro Pro Lys Ser Leu Glu Ile Ser Lys				
770	775	780			
Asp Trp Gln Ser Glu Thr	Ile Glu Tyr Lys Asp Asp Gln Asp Met His				
785	790	795	800		
Ala Leu Gly Lys Lys His	Thr His Glu Asn Val Lys Glu Thr Ala Ile				

805 810 815
 Gln Thr Glu Asp Ser Ala Ile Ser Glu Ser Pro Glu Glu Pro Leu Pro
 820 825 830
 Asn Leu Lys Pro Lys Pro Asn Leu Arg Thr Glu His Gln Val Pro Ser
 835 840 845
 Ser Val Ser Ser Pro Asp Asp Ala Met Val Ser Pro Leu Lys Pro Ala
 850 855 860
 Pro Lys Met Thr Arg Asp Thr Gly Thr Ala Pro Phe Ala Pro Asn Leu
 865 870 875 880
 Glu Glu Ile Asn Asn Ile Leu Glu Ser Lys Phe Lys Ser Arg Ala Ser
 885 890 895
 Asn Ala Gln Ala Lys Pro Ser Ser Phe Phe Leu Gln Met Gln Lys Arg
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 Val Ser Gly His Tyr Val Thr Ser Ala Ala Ala Lys Ser Val His Ala
 915 920 925
 Ala Pro Asn Pro Ala Pro Lys Glu Leu Thr Asn Lys Glu Ala Glu Arg
 930 935 940
 Asp Met Leu Pro Ser Pro Glu Gln Thr Leu Ser Pro Leu Ser Lys Met
 945 950 955 960
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 Gln Leu Gly Val Ser Asp Lys Glu Asn Asn Ser Ala His Asn Glu Gln
 1075 1080 1085
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 1105 1110 1115 1120
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<211> 625

<212> DNA

<213> Homo sapiens

<400> 2931

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<210> 2932

<211> 90

<212> PRT

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		20					25					30			
Asn	Lys	Lys	Lys	Arg	Leu	Ala	Leu	Asp	Ser	Glu	Ala	Ala	Val	Ser	Ala
		35				40						45			
Asp	Lys	Pro	Asp	Ser	Val	Leu	Thr	His	His	Val	Pro	Arg	Asn	Leu	Gln
	50					55				60					
Lys	Leu	Cys	Lys	Glu	Arg	Ala	Gln	Lys	Leu	Cys	Arg	Asn	Ser	Thr	Arg
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<210> 2933

<211> 688

<212> DNA

<213> Homo sapiens

<400> 2933

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<210> 2934

<211> 229

<212> PRT

<213> Homo sapiens

<400> 2934

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Leu	Glu	Thr	Gln	Asn	Asn	Asn	Leu	Gln	Ala	Gln	Ile	Leu	Ala	Leu	Gln
				85					90					95	
Arg	Gln	Thr	Val	Ser	Leu	Gln	Glu	Gln	Asn	Thr	Thr	Leu	Gln	Thr	Gln
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Leu	Tyr	Asp	Ser	Leu	Ile	Lys	Asp	His	Glu	Lys	Leu	Glu	Leu	Leu	His
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Glu	Arg	Gln	Ala	Ser	Glu	Tyr	Glu	Ser	Leu	Ile	Ser	Lys	His	Gly	Thr
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Leu	Lys	Ser	Ala	His	Lys	Asn	Leu	Glu	Val	Glu	His	Arg	Asp	Leu	Glu
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Asp	Arg	Tyr	Asn	Gln	Leu	Leu	Lys	Gln	Lys	Gly	Gln	Leu	Glu	Asp	Leu
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Glu	Lys	Met	Leu	Lys											
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<210> 2935

<211> 1200

<212> DNA

<213> Homo sapiens

<400> 2935

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<210> 2936

<211> 109

<212> PRT

<213> Homo sapiens

<400> 2936

Ser Trp Glu Arg Phe Gly His Gly Asp Arg Gly Pro Glu Gly Pro Ala

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      20             25             30
Val Lys Val Lys Met Glu Lys Lys Ser Thr Pro Ser Arg Gly Ser Ser
      35             40             45
Ser Lys Ser Ser Ser Arg Gln Leu Ser Glu Ser Phe Lys Ser Lys Glu
      50             55             60
Phe Val Ser Ser Asp Glu Ser Ser Ser Gly Glu Asn Lys Ser Lys Lys
      65             70             75             80
Lys Arg Arg Arg Ser Glu Asp Ser Glu Glu Glu Glu Leu Ala Ser Thr
      85             90             95
Pro Pro Ser Ser Glu Asp Ser Ala Ser Gly Ser Asp Glu
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<210> 2937

<211> 749

<212> DNA

<213> Homo sapiens

<400> 2937

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120
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180
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<210> 2938

<211> 249

<212> PRT

<213> Homo sapiens

<400> 2938

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      20           25           30
Glu Ala Thr Gly Leu Pro Leu Asn Leu Ser Asn Phe Val Phe Cys Gln
      35           40           45
Tyr Thr Phe Trp Asp Gln Cys Glu Ser Thr Val Ala Ala Pro Val Val
      50           55           60
Asp Pro Glu Val Pro Ser Pro Gln Ser Lys Asp Ala Gln Tyr Thr Val
      65           70           75           80
Thr Phe Ser His Cys Lys Asp Tyr Val Val Asn Val Thr Glu Glu Phe
      85           90           95
Leu Glu Phe Ile Ser Asp Gly Ala Leu Ala Ile Glu Val Trp Gly His
      100          105          110
Arg Cys Ala Gly Asn Gly Ser Ser Ile Trp Glu Val Asp Ser Leu His
      115          120          125
Ala Lys Thr Arg Thr Leu His Asp Arg Trp Asn Glu Val Thr Arg Arg
      130          135          140
Ile Glu Met Trp Ile Ser Ile Leu Glu Leu Asn Glu Leu Gly Glu Tyr
      145          150          155          160
Ala Ala Val Glu Leu His Gln Ala Lys Asp Val Asn Thr Gly Gly Ile
      165          170          175
Phe Gln Leu Arg Gln Gly His Ser Arg Arg Val Gln Val Thr Val Lys
      180          185          190
Pro Val Gln His Ser Gly Thr Leu Pro Leu Met Val Glu Ala Ile Leu
      195          200          205
Ser Val Ser Ile Gly Cys Val Thr Ala Arg Ser Thr Lys Leu Gln Arg
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Gly Leu Asp Ser Tyr Gln Arg Asp Asp Glu Asp Gly Asp Asp Met Asp
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<210> 2939

<211> 2405

<212> DNA

<213> Homo sapiens

<400> 2939

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300
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360
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420
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480

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2100

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<210> 2940

<211> 357

<212> PRT

<213> Homo sapiens

<400> 2940

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Tyr	Gly	Ser	Val	Thr	Phe	Thr	Val	Tyr	Gly	Thr	Pro	Lys	Pro	Lys	Arg	35	40	45	
Pro	Ala	Ile	Leu	Thr	Tyr	His	Asp	Val	Gly	Leu	Asn	Tyr	Lys	Ser	Cys	50	55	60	
Phe	Gln	Pro	Leu	Phe	Gln	Phe	Glu	Asp	Met	Gln	Glu	Ile	Ile	Gln	Asn	65	70	75	80
Phe	Val	Arg	Val	His	Val	Asp	Ala	Pro	Gly	Met	Glu	Glu	Gly	Ala	Pro	85	90	95	
Val	Phe	Pro	Leu	Gly	Tyr	Gln	Tyr	Pro	Ser	Leu	Asp	Gln	Leu	Ala	Asp	100	105	110	
Met	Ile	Pro	Cys	Val	Leu	Gln	Tyr	Leu	Asn	Phe	Ser	Thr	Ile	Ile	Gly	115	120	125	
Val	Gly	Val	Gly	Ala	Gly	Ala	Tyr	Ile	Leu	Ala	Arg	Tyr	Ala	Leu	Asn	130	135	140	
His	Pro	Asp	Thr	Val	Glu	Gly	Leu	Val	Leu	Ile	Asn	Ile	Asp	Pro	Asn	145	150	155	160
Ala	Lys	Gly	Trp	Met	Asp	Trp	Ala	Ala	His	Lys	Leu	Thr	Gly	Leu	Thr	165	170	175	
Ser	Ser	Ile	Pro	Glu	Met	Ile	Leu	Gly	His	Leu	Phe	Ser	Gln	Glu	Glu	180	185	190	
Leu	Ser	Gly	Asn	Ser	Glu	Leu	Ile	Gln	Lys	Tyr	Arg	Asn	Ile	Ile	Thr	195	200	205	
His	Ala	Pro	Asn	Leu	Asp	Asn	Ile	Glu	Leu	Tyr	Trp	Asn	Ser	Tyr	Asn	210	215	220	
Asn	Arg	Arg	Asp	Leu	Asn	Phe	Glu	Arg	Gly	Gly	Asp	Ile	Thr	Leu	Arg	225	230	235	240
Cys	Pro	Val	Met	Leu	Val	Val	Gly	Asp	Gln	Ala	Pro	His	Glu	Asp	Ala	245	250	255	
Val	Val	Glu	Cys	Asn	Ser	Lys	Leu	Asp	Pro	Thr	Gln	Thr	Ser	Phe	Leu	260	265	270	
Lys	Met	Ala	Asp	Ser	Gly	Gly	Gln	Pro	Gln	Leu	Thr	Gln	Pro	Gly	Lys				

	275		280		285										
Leu	Thr	Glu	Ala	Phe	Lys	Tyr	Phe	Leu	Gln	Gly	Met	Gly	Tyr	Met	Ala
	290						295				300				
Ser	Ser	Cys	Met	Thr	Arg	Leu	Ser	Arg	Ser	Arg	Thr	Ala	Ser	Leu	Thr
305					310					315				320	
Ser	Ala	Ala	Ser	Val	Asp	Gly	Asn	Arg	Ser	Arg	Ser	Arg	Thr	Leu	Ser
			325					330					335		
Gln	Ser	Ser	Glu	Ser	Gly	Thr	Leu	Ser	Ser	Gly	Pro	Pro	Gly	His	Thr
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<210> 2941

<211> 847

<212> DNA

<213> Homo sapiens

<400> 2941

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 847

<210> 2942

<211> 229

<212> PRT

<213> Homo sapiens

<400> 2942

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 Gly Arg Gly His Asp His Leu Ala Gly Ala Ser Pro Thr Ala Arg Gln
 35 40 45
 His Leu Phe Lys Gln Gly Gln Leu Ser Ala Gln Gly Gly Ala Gln Pro
 50 55 60
 Ser Val Glu Ala Pro Ala Ala Pro Arg Pro Thr Ala Thr Gln Leu Thr
 65 70 75 80
 Arg Asp Leu Leu Arg Ser Arg Gly Ile Ala Gly Leu Tyr Lys Gly Leu
 85 90 95
 Gly Ala Thr Leu Leu Arg Asp Val Pro Phe Ser Val Val Tyr Phe Pro
 100 105 110
 Leu Phe Ala Asn Leu Asn Gln Leu Gly Arg Pro Ala Ser Glu Glu Lys
 115 120 125
 Ser Pro Phe Tyr Val Ser Phe Leu Ala Gly Cys Val Ala Gly Ser Ala
 130 135 140
 Ala Ala Val Ala Val Asn Pro Cys Asp Val Val Lys Thr Arg Leu Gln
 145 150 155 160
 Ser Leu Gln Arg Gly Val Asn Glu Asp Thr Tyr Ser Gly Ile Leu Asp
 165 170 175
 Cys Ala Arg Lys Ile Leu Arg His Glu Gly Pro Ser Ala Phe Leu Lys
 180 185 190
 Gly Ala Tyr Cys Arg Ala Leu Val Ile Ala Pro Leu Phe Gly Ile Ala
 195 200 205
 Gln Val Val Tyr Phe Leu Gly Ile Ala Glu Ser Leu Leu Gly Leu Leu
 210 215 220
 Gln Asp Pro Gln Ala
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<210> 2943

<211> 1501

<212> DNA

<213> Homo sapiens

<400> 2943

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<210> 2944

<211> 218

<212> PRT

<213> Homo sapiens

<400> 2944

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Leu	Thr	Asp	Cys	Ile	Gly	Thr	Val	Asp	Ser	Arg	Ala	Glu	Ser	Ile	Asp
			20					25					30		
Lys	Lys	Ile	Ser	Arg	Leu	Asp	Ala	Glu	Leu	Val	Lys	Tyr	Lys	Asp	Gln
			35				40					45			
Ile	Lys	Lys	Met	Arg	Glu	Gly	Pro	Ala	Lys	Asn	Met	Val	Lys	Gln	Lys
			50			55				60					
Ala	Leu	Arg	Val	Leu	Lys	Gln	Lys	Arg	Met	Tyr	Glu	Gln	Gln	Arg	Asp
65				70					75					80	
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<212> DNA
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<211> 463

<212> PRT

<213> Homo sapiens

<400> 2946

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Lys	Arg	Thr	Thr	Pro	Leu	Gln	Thr	His	Ser	Ile	Ile	Ile	Ser	Asp	Gln
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Val	Pro	Ser	Asp	Gln	Asp	Ala	His	Gln	Tyr	Leu	Arg	Leu	Arg	Asp	Gln
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Ser	Glu	Ala	Thr	Gln	Val	Met	Ala	Glu	Pro	Gly	Glu	Gly	Gly	Ser	Glu
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Thr	Val	Ala	Leu	Pro	Pro	Pro	Pro	Pro	Ser	Glu	Glu	Gly	Gly	Val	Pro
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Ala	Glu	Arg	Glu	Ser	Ala	Glu
		195		200		205
Lys	Glu	Val	Met	Glu	Glu	Gln
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Gly	Glu	Glu	Ile	Glu	Val	Ala
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Arg	Glu	Glu	Glu	Gly	Pro	Trp
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Pro	Leu	Glu	Ala	Ile	Gln	Leu
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Asp	Arg	Ala	Phe	Gln	Gln	Leu
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His	Tyr	Leu	Glu	Arg	Arg	Asn
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Trp	Met	Thr	Ala	Phe	Arg	Asn
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Gly	Gln	Asp	Ala	Glu	Met	Leu
				325		330
Glu	Leu	Arg	His	Pro	Arg	Thr
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Arg	Asn	Pro	Tyr	Phe	Arg	Asn
		355		360		365
Arg	Ser	Ser	Gly	Arg	Val	Val
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Arg	Gly	His	Glu	Pro	Gln	Ser
				385		390
Cys	Ser	Phe	Phe	Thr	Trp	Phe
				405		410
Lys	Ile	Ala	Glu	Ile	Ile	Lys
				420		425
Tyr	Tyr	Leu	Leu	Arg	Glu	Gly
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<211> 997

<212> DNA

<213> Homo sapiens

<400> 2947

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<210> 2948

<211> 332

<212> PRT

<213> Homo sapiens

<400> 2948

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Ser	Asp	Ile	Arg	Ala	Gly	Thr	Ala	Pro	Ser	Cys	Arg	Asn	His	Ile	Lys
		35					40					45			
Ser	Ser	Cys	Ser	Leu	Ile	Ala	Phe	Asn	Ser	Asp	Arg	Pro	Gly	Val	Leu
	50					55					60				
Gly	Ile	Val	Pro	Leu	Gln	Gly	Gln	Gly	Glu	Asp	Lys	Arg	Arg	Val	Ala
65				70					75					80	
His	Leu	Gly	Cys	His	Ser	Asp	Leu	Val	Thr	Asp	Leu	Asp	Phe	Ser	Pro
			85					90					95		
Phe	Asp	Asp	Phe	Leu	Leu	Ala	Thr	Gly	Ser	Ala	Asp	Arg	Thr	Val	Lys
			100					105					110		
Leu	Trp	Arg	Leu	Pro	Gly	Pro	Gly	Gln	Ala	Leu	Pro	Ser	Ala	Pro	Gly
		115					120					125			
Val	Val	Leu	Gly	Pro	Glu	Asp	Leu	Pro	Val	Glu	Val	Leu	Gln	Phe	His
	130					135					140				
Pro	Thr	Ser	Asp	Gly	Ile	Leu	Val	Ser	Ala	Ala	Gly	Thr	Thr	Val	Lys
145					150				155					160	
Val	Trp	Asp	Ala	Ala	Lys	Gln	Gln	Pro	Leu	Thr	Glu	Leu	Ala	Ala	His

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 Gly Thr Ala Cys Lys Asp Lys Gln Leu Gln Ile Phe Asp Pro Arg Thr
 195 200 205
 Lys Pro Arg Ala Ser Gln Ser Thr Gln Ala His Glu Asn Ser Arg Asp
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 Ser Arg Leu Ala Trp Met Gly Thr Trp Glu His Leu Val Ser Thr Gly
 225 230 235 240
 Phe Asn Gln Met Arg Glu Arg Glu Val Lys Leu Trp Asp Thr Arg Phe
 245 250 255
 Phe Ser Ser Ala Leu Ala Ser Leu Thr Leu Asp Thr Ser Leu Gly Cys
 260 265 270
 Leu Val Pro Leu Leu Asp Pro Asp Ser Gly Leu Leu Val Leu Ala Gly
 275 280 285
 Lys Gly Glu Arg Gln Leu Tyr Cys Tyr Glu Val Val Pro Gln Gln Pro
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<210> 2949

<211> 880

<212> DNA

<213> Homo sapiens

<400> 2949

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<210> 2950
 <211> 279
 <212> PRT
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<400> 2950
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 Lys Gly Lys Arg Pro Asn Leu Lys Val His Ile Asn Thr Thr Ser Asp
 35 40 45
 Ser Ile Leu Leu Lys Phe Leu Arg Pro Ser Pro Asn Val Lys Leu Glu
 50 55 60
 Gly Leu Leu Leu Gly Tyr Gly Ser Asn Val Ser Pro Asn Gln Tyr Phe
 65 70 75 80
 Pro Leu Pro Ala Glu Gly Lys Phe Thr Glu Ala Ile Val Asp Ala Glu
 85 90 95
 Pro Lys Tyr Leu Ile Val Val Arg Pro Ala Pro Pro Pro Ser Gln Lys
 100 105 110
 Lys Ser Cys Ser Gly Lys Thr Arg Ser Arg Lys Pro Leu Gln Leu Val
 115 120 125
 Val Gly Thr Leu Thr Pro Ser Ser Val Phe Leu Ser Trp Gly Phe Leu
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 Ile Asn Pro His His Asp Trp Thr Leu Pro Ser His Cys Pro Asn Asp
 145 150 155 160
 Arg Phe Tyr Thr Ile Arg Tyr Arg Glu Lys Asp Lys Glu Lys Lys Trp
 165 170 175
 Ile Phe Gln Ile Cys Pro Ala Pro Glu Thr Ile Val Glu Asn Leu Lys
 180 185 190
 Pro Asn Thr Val Tyr Glu Phe Gly Val Lys Asp Asn Val Glu Gly Gly
 195 200 205
 Ile Trp Ser Lys Ile Phe Asn His Lys Thr Val Val Gly Ser Lys Lys
 210 215 220
 Val Asn Gly Lys Ile Gln Ser Thr Tyr Asp Gln Asp His Thr Val Pro
 225 230 235 240
 Ala Tyr Val Pro Arg Lys Leu Ile Pro Ile Thr Ile Ile Lys Gln Val
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<210> 2951
 <211> 3478
 <212> DNA
 <213> Homo sapiens

<400> 2951

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<210> 2952

<211> 493

<212> PRT

<213> Homo sapiens

<400> 2952

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Glu	Ser	Gln	Asp	Lys	Cys	Thr	Tyr	Thr	Phe	Ile	Val	Pro	Gln	Gln	Arg	50	55	60	
Val	Thr	Gly	Ala	Ile	Cys	Val	Asn	Ser	Lys	Glu	Pro	Glu	Val	Leu	Leu	65	70	75	80
Glu	Asn	Arg	Val	His	Lys	Gln	Glu	Leu	Glu	Leu	Leu	Asn	Asn	Glu	Leu	85	90	95	
Leu	Lys	Gln	Lys	Arg	Gln	Ile	Glu	Thr	Leu	Gln	Gln	Leu	Val	Glu	Val	100	105	110	
Asp	Gly	Gly	Ile	Val	Ser	Glu	Val	Lys	Leu	Leu	Arg	Lys	Glu	Ser	Arg	115	120	125	
Asn	Met	Asn	Ser	Arg	Val	Thr	Gln	Leu	Tyr	Met	Gln	Leu	Leu	His	Glu	130	135	140	
Ile	Ile	Arg	Lys	Arg	Asp	Asn	Ala	Leu	Glu	Leu	Ser	Gln	Leu	Glu	Asn	145	150	155	160
Arg	Ile	Leu	Asn	Gln	Thr	Ala	Asp	Met	Leu	Gln	Leu	Ala	Ser	Lys	Tyr	165	170	175	
Lys	Asp	Leu	Glu	His	Lys	Phe	Gln	His	Leu	Ala	Met	Leu	Ala	His	Asn	180	185	190	
Gln	Ser	Glu	Ile	Ile	Ala	Gln	Leu	Glu	Glu	His	Cys	Gln	Arg	Val	Pro	195	200	205	
Ser	Ala	Arg	Pro	Val	Pro	Gln	Pro	Pro	Pro	Ala	Ala	Pro	Pro	Arg	Val	210	215	220	
Tyr	Gln	Pro	Pro	Thr	Tyr	Asn	Arg	Ile	Ile	Asn	Gln	Ile	Ser	Thr	Asn	225	230	235	240
Glu	Ile	Gln	Ser	Asp	Gln	Asn	Leu	Lys	Val	Leu	Pro	Pro	Pro	Leu	Pro	245	250	255	
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Gly	Pro	Trp	Arg	Asp	Cys	Leu	Gln	Ala	Leu	Glu	Asp	Gly	His	Asp	Thr	275	280	285	
Ser	Ser	Ile	Tyr	Leu	Val	Lys	Pro	Glu	Asn	Thr	Asn	Arg	Leu	Met	Gln	290	295	300	
Val	Trp	Cys	Asp	Gln	Arg	His	Asp	Pro	Gly	Gly	Trp	Thr	Val	Ile	Gln				

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<212> DNA
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<210> 2954

<211> 181

<212> PRT

<213> Homo sapiens

<400> 2954

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		20						25					30		
Leu	Ala	Ala	Gly	Ala	Val	Thr	Leu	Leu	Ser	Leu	Tyr	Leu	Leu	Phe	Gly
		35					40					45			
Tyr	Gly	Ala	Ser	Leu	Leu	Cys	Asn	Leu	Ile	Gly	Phe	Val	Tyr	Pro	Ala
		50				55					60				
Tyr	Ala	Ser	Ile	Lys	Ala	Ile	Glu	Ser	Pro	Ser	Lys	Asp	Asp	Asp	Thr
65				70						75				80	
Val	Trp	Leu	Thr	Tyr	Trp	Val	Val	Tyr	Ala	Leu	Phe	Gly	Leu	Ala	Glu
			85					90					95		
Phe	Phe	Ser	Asp	Leu	Leu	Leu	Ser	Trp	Phe	Pro	Phe	Tyr	Tyr	Val	Gly
			100					105					110		
Lys	Cys	Ala	Phe	Leu	Leu	Phe	Cys	Met	Ala	Pro	Arg	Pro	Trp	Asn	Gly
		115					120					125			
Ala	Leu	Met	Leu	Tyr	Gln	Arg	Val	Val	Arg	Pro	Leu	Phe	Leu	Arg	His
		130				135					140				
His	Gly	Ala	Val	Asp	Arg	Ile	Met	Asn	Asp	Leu	Ser	Gly	Arg	Ala	Leu
145				150						155				160	
Asp	Ala	Ala	Ala	Gly	Ile	Thr	Arg	Asn	Val	Lys	Pro	Ser	Gln	Thr	Pro
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Gln	Pro	Lys	Asp	Lys											
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<210> 2955

<211> 295

<212> DNA

<213> Homo sapiens

<400> 2955

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<210> 2956

<211> 91

<212> PRT

<213> Homo sapiens

<400> 2956

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Tyr	His	Leu	Thr	Val	His	Leu	Phe	Leu	Ser	Cys	Val	Phe	Met	Ser	Ile
			20					25				30			
Ser	Gln	Gly	Met	Pro	Cys	Pro	Cys	Leu	Thr	Phe	Pro	Leu	Phe	Trp	His
		35				40					45				
Ile	Asn	Ser	Tyr	Phe	Pro	Ile	Ser	His	Tyr	Lys	Gly	His	Thr	Val	Leu
	50					55					60				
Pro	Leu	Pro	Leu	Ser	Ser	Lys	Ile	Ala	Ser	Pro	Pro	Phe	Ser	Leu	Ile
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Ile	Gly	Ile	Ser	Lys	Gln	Ala	Ala	Ala	Gln	Ala					
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<210> 2957

<211> 4724

<212> DNA

<213> Homo sapiens

<400> 2957

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 240
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 360

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<210> 2958

<211> 1047

<212> PRT

<213> Homo sapiens

<400> 2958

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			20					25					30		
Ala	Ile	Val	Val	Ser	Val	Gly	Val	Asp	Glu	Glu	Ile	Val	Tyr	Ala	Lys
			35				40					45			
Ser	Thr	Ala	Leu	Gln	Thr	Trp	Leu	Phe	Gly	Tyr	Glu	Leu	Thr	Asp	Thr
	50					55					60				
Ile	Met	Val	Phe	Cys	Asp	Asp	Lys	Ile	Ile	Phe	Met	Ala	Ser	Lys	Lys

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Ala Asn Gly Ala Pro Ala Ile Thr Leu Leu Ile Arg Glu Lys Asn Glu
110          100          105          110
Ser Asn Lys Ser Ser Phe Asp Lys Met Ile Glu Ala Ile Lys Glu Ser
115          120          125
Lys Asn Gly Lys Lys Ile Gly Val Phe Ser Lys Asp Lys Phe Pro Gly
130          135          140
Glu Phe Met Lys Ser Trp Asn Asp Cys Leu Asn Lys Glu Gly Phe Asp
145          150          155          160
Lys Ile Asp Ile Ser Ala Val Val Ala Tyr Thr Ile Ala Val Lys Glu
165          170          175
Asp Gly Glu Leu Asn Leu Met Lys Lys Ala Ala Ser Ile Thr Ser Glu
180          185          190
Val Phe Asn Lys Phe Phe Lys Glu Arg Val Met Glu Ile Val Asp Ala
195          200          205
Asp Glu Lys Val Arg His Ser Lys Leu Ala Glu Ser Val Glu Lys Ala
210          215          220
Ile Glu Glu Lys Lys Tyr Leu Ala Gly Ala Asp Pro Ser Thr Val Glu
225          230          235          240
Met Cys Tyr Pro Pro Ile Ile Gln Ser Gly Gly Asn Tyr Asn Leu Lys
245          250          255
Phe Ser Val Val Ser Asp Lys Asn His Met His Phe Gly Ala Ile Thr
260          265          270
Cys Ala Met Gly Ile Arg Phe Lys Ser Tyr Cys Ser Asn Leu Val Arg
275          280          285
Thr Leu Met Val Asp Pro Ser Gln Glu Val Gln Glu Asn Tyr Asn Phe
290          295          300
Leu Leu Gln Leu Gln Glu Glu Leu Leu Lys Glu Leu Arg His Gly Val
305          310          315          320
Lys Ile Cys Asp Val Tyr Asn Ala Val Met Asp Val Val Lys Lys Gln
325          330          335
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340          345          350
Gly Ile Glu Phe Arg Glu Gly Ser Leu Val Ile Asn Ser Lys Asn Gln
355          360          365
Tyr Lys Leu Lys Lys Gly Met Val Phe Ser Ile Asn Leu Gly Phe Ser
370          375          380
Asp Leu Thr Asn Lys Glu Gly Lys Lys Pro Glu Glu Lys Thr Tyr Ala
385          390          395          400
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420          425          430
Lys Asn Glu Asp Glu Glu Glu Glu Glu Glu Lys Asp Glu Ala Glu
435          440          445
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Arg Asn Glu Met Thr Ala Glu Glu Lys Arg Arg Ala His Gln Lys Glu
465          470          475          480
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Lys	His	Ala	Leu	Phe	Gln	Pro	Cys	Asp	Gly	Glu	Met	Ile	Ile	Val	Leu						
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Asp	Val	Gln	Phe	Tyr	Thr	Glu	Val	Gly	Glu	Ile	Thr	Thr	Asp	Leu	Gly						
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Glu	Arg	Glu	Met	Arg	His	Lys	Leu	Lys	Thr	Ala	Phe	Lys	Asn	Phe	Ile						
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785					790					795					800						
Phe	Arg	Asp	Leu	Gly	Phe	Asn	Gly	Ala	Pro	Tyr	Arg	Ser	Thr	Cys	Leu						
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Leu	Gln	Pro	Thr	Ser	Ser	Ala	Leu	Val	Asn	Ala	Thr	Glu	Trp	Pro	Pro						
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Phe	Val	Val	Thr	Le																	

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Lys Glu Ser Leu Gly Ser Glu Glu Glu Ser Gly Lys Asp Trp Asp Glu		975
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Glu Glu Glu Gln Ser Arg Ser Met Ser Arg Lys Arg Lys Ala Ser Val		1005
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His Ser Ser Gly Arg Gly Ser Asn Arg Gly Ser Arg His Ser Ser Ala		1020
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<210> 2959

<211> 3323

<212> DNA

<213> Homo sapiens

<400> 2959

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<210> 2960

<211> 868

<212> PRT

<213> Homo sapiens

<400> 2960

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Thr	Val	Leu	Asp	Lys	Ala	Val	Gln	Ala	Asp	Gly	Gln	Val	Lys	Glu	Cys							
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Val	Ile	Asn	Glu	Glu	Ala	Leu	Ser	Val	Thr	Glu	Leu	Asp	Arg	Val	Tyr							

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 675 680 685
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 690 695 700
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 785 790 795 800
 Pro Pro Tyr Pro Thr Tyr Pro Gly Tyr Pro Gly Tyr Cys Gln Met Pro
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 Met Pro Met Gly Tyr Asn Pro Tyr Ala Tyr Gly Gln Tyr Asn Met Pro
 820 825 830
 Tyr Pro Pro Val Tyr His Gln Ser Pro Gly Gln Ala Pro Tyr Pro Gly
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<210> 2961

<211> 434

<212> DNA

<213> Homo sapiens

<400> 2961

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 Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
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<210> 2963
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 <211> 115
 <212> PRT

<213> Homo sapiens

<400> 2964

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 35 40 45
 Gly Gly Pro Gly Arg Val Trp Gly Thr Ser Leu His Val Val Gly Leu
 50 55 60
 Leu Met Val His Glu Trp Val Val Val Lys Gly Ala Val Trp Ala Gly
 65 70 75 80
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 Pro Ala Gly
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<210> 2965

<211> 3739

<212> DNA

<213> Homo sapiens

<400> 2965

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<210> 2966

<211> 386

<212> PRT

<213> Homo sapiens

<400> 2966

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Pro	Phe	Pro	Leu	Leu	Met	Asn	Arg	Gln	Arg	Val	Pro	Lys	Val	Leu
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Glu	Asn	Ala	Lys	Asn	Phe	Pro	Gln	Cys	Val	Leu	Glu	Ile	Ser	Asp
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Glu	Val	Leu	Glu	Trp	Tyr	Thr	Ala	Lys	Asp	Phe	Ile	Val	Gly	Lys
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Leu	Thr	Ile	Leu	Gly	Arg	Thr	Phe	Phe	Ile	Tyr	Asp	Cys	Asp	Pro
85					90					95				
Thr	Arg	Arg	Tyr	Lys	Glu	Lys	Phe	Gly	Ile	Thr	Asp	Leu	Pro	Arg
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Ile	Asp	Val	Ser	Lys	Arg	Glu	Pro	Pro	Val	Lys	Gln	Glu	Leu	Pro
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Pro	Tyr	Asn	Gly	Phe	Gly	Leu	Val	Glu	Asp	Ser	Ala	Gln	Asn	Cys
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Ala	Leu	Ile	Pro	Lys	Ala	Pro	Lys	Lys	Asp	Val	Ile	Lys	Met	Leu
145					150					155				
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165					170					175				
Pro	Glu	Asp	Lys	Asp	Arg	Arg	Phe	Val	Phe	Ser	Tyr	Phe	Leu	Ala
180					185					190				
Asp	Met	Ile	Ser	Ile	Phe	Glu	Pro	Pro	Val	Arg	Asn	Ser	Gly	Ile
195					200					205				
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Ala	Leu	Ala	Ser	Ile	Gln	Asn	His	Val	Arg	Lys	Arg	Glu	Ala	Pro
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Leu	Glu	Ala	Leu	Ile	Asp	Thr	Ile	Gln	Lys	Gln	Leu	Lys	Asp	His
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Cys	Lys	Asp	Asn	Ile	Arg	Glu	Ala	Phe	Gln	Ile	Tyr	Asp	Lys	Glu
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Ser	Gly	Tyr	Val	Asp	Arg	Asp	Met	Phe	Phe	Lys	Ile	Cys	Glu	Ser
340					345					350				
Asn	Val	Pro	Val	Asp	Asp	Ser	Leu	Val	Lys	Glu	Leu	Leu	Arg	Met
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Ser	His	Gly	Glu	Gly	Lys	Ile	Asn	Tyr	Tyr	Asn	Phe	Val	Arg	Ala
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<400> 2967

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<212> PRT

<213> Homo sapiens

<400> 2968

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Gly	Pro	Ser	Lys	Ser	Pro	Ser	Gly	Val	Arg	Cys	Cys	Gly	Ala	Ala
			20				25					30		
Trp	Glu	Asp	Lys	Asp	Glu	Phe	Leu	Asp	Val	Ile	Tyr	Trp	Phe	Arg
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Ile	Ile	Ala	Val	Val	Leu	Gly	Val	Ile	Trp	Gly	Val	Leu	Pro	Leu
			50				55				60			
Gly	Phe	Leu	Gly	Ile	Ala	Gly	Phe	Cys	Leu	Ile	Asn	Ala	Gly	Val

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Val His Gly His Leu Asp His Leu Leu His Cys His Pro Leu
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Ser Gln Thr Ile Met Ile Ala Trp Gly Ser Pro Ser Asn Arg Asp Phe
              35              40              45
Met Glu Thr Leu Asn Thr Leu Lys Tyr Ala Asn Arg Ala Arg Asn Ile
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Lys Asn Lys Val Val Val Asn Gln Asp Lys Thr Ala Ser Lys Ser Met

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<210> 2971

<211> 6015

<212> DNA

<213> Homo sapiens

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<211> 632

<212> PRT

<213> Homo sapiens

<400> 2972

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      35          40          45
Arg Glu Val Lys Ser Leu Lys Lys Leu Asn His Ala Asn Val Val Lys
      50          55          60
Leu Lys Glu Val Ile Arg Glu Asn Asp His Leu Tyr Phe Ile Phe Glu
65          70          75          80
Tyr Met Lys Glu Asn Leu Tyr Gln Leu Ile Lys Glu Arg Asn Lys Leu
      85          90          95
Phe Pro Glu Ser Ala Ile Arg Asn Ile Met Tyr Gln Ile Leu Gln Gly
      100          105          110
Leu Ala Phe Ile His Lys His Gly Phe Phe His Arg Asp Leu Lys Pro
      115          120          125
Glu Asn Leu Leu Cys Met Gly Pro Glu Leu Val Lys Ile Ala Asp Phe
      130          135          140
Gly Leu Ala Arg Glu Ile Arg Ser Lys Pro Pro Tyr Thr Asp Tyr Val
145          150          155          160
Ser Thr Arg Trp Tyr Arg Ala Pro Glu Val Leu Leu Arg Ser Thr Asn
      165          170          175
Tyr Ser Ser Pro Ile Asp Val Trp Ala Val Gly Cys Ile Met Ala Glu
      180          185          190
Val Tyr Thr Leu Arg Pro Leu Phe Pro Gly Ala Ser Glu Ile Asp Thr
      195          200          205
Ile Phe Lys Ile Cys Gln Val Leu Gly Thr Pro Lys Lys Thr Asp Trp
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Pro Glu Gly Tyr Gln Leu Ser Ser Ala Met Asn Phe Arg Trp Pro Gln
225          230          235          240
Cys Val Pro Asn Asn Leu Lys Thr Leu Ile Pro Asn Ala Ser Ser Glu
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Ala Val Gln Leu Leu Arg Asp Met Leu Gln Trp Asp Pro Lys Lys Arg
      260          265          270
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      275          280          285
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Pro Ser Pro Leu Leu Phe Pro Ser Leu His Asn Lys His Pro Gln Ser
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<211> 858

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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Leu	Pro	Lys	Thr	Val	Ser	Gly	Lys	Ile	Gln	Arg	Ser	Lys	Leu	Arg	Ser
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Gln	Glu	Trp	Gly	Lys											
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<210> 2975

<211> 1425

<212> DNA

<213> Homo sapiens

<400> 2975

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<210> 2976

<211> 328

<212> PRT

<213> Homo sapiens

<400> 2976

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			20					25					30		
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Leu	Pro	Lys	Lys	Arg	Met	Gly	Lys	Ser	Asn	Pro	Gly	Trp	Glu	Asn	Leu
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<210> 2977
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<212> DNA
<213> Homo sapiens
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<210> 2978

<211> 369

<212> PRT

<213> Homo sapiens

<400> 2978

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Ala	Gly	Asp	Ala	Gly	Thr	Tyr	His	Cys	Thr	Ala	Ala	Glu	Trp	Ile	Gln
			20					25					30		
Asp	Pro	Asp	Gly	Ser	Trp	Ala	Gln	Ile	Ala	Glu	Lys	Arg	Ala	Val	Leu
		35					40					45			
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		50				55					60				
Gly	Pro	Gly	Glu	Arg	Arg	Ile	Gly	Pro	Gly	Glu	Pro	Leu	Glu	Leu	Leu
65					70					75				80	
Cys	Asn	Val	Ser	Gly	Ala	Leu	Pro	Pro	Ala	Gly	Arg	His	Ala	Ala	Tyr
			85						90					95	
Ser	Val	Gly	Trp	Glu	Met	Ala	Pro	Ala	Gly	Ala	Pro	Gly	Pro	Gly	Arg
			100					105					110		
Leu	Val	Ala	Gln	Leu	Asp	Thr	Glu	Gly	Val	Gly	Ser	Leu	Xaa	Ala	Leu

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Tyr Arg Leu Arg Leu Glu Ala Ala Arg Pro Gly Asp Ala Gly Thr Tyr		
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Arg Cys Leu Ala Lys Ala Tyr Val Arg Gly Ser Gly Thr Arg Leu Arg		
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Glu Ala Ala Ser Ala Arg Ser Arg Pro Leu Pro Val His Val Arg Glu		
180	185	190
Glu Gly Val Val Leu Glu Ala Val Ala Trp Leu Ala Gly Gly Thr Val		
195	200	205
Tyr Arg Gly Glu Thr Ala Ser Leu Leu Cys Asn Ile Ser Val Arg Gly		
210	215	220
Gly Pro Pro Gly Leu Arg Leu Ala Ala Ser Trp Trp Val Glu Arg Pro		
225	230	235
Glu Asp Gly Glu Leu Ser Ser Val Pro Ala Gln Leu Val Gly Gly Val		
245	250	255
Gly Gln Asp Gly Val Ala Glu Leu Gly Val Arg Pro Gly Gly Gly Pro		
260	265	270
Val Ser Val Glu Leu Val Gly Pro Arg Ser His Arg Leu Arg Leu His		
275	280	285
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290	295	300
Trp Val Gln His Ala Asp Tyr Ser Trp Tyr Gln Ala Gly Ser Ala Arg		
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Ser Gly Pro Val Thr Val Tyr Pro Tyr Met His Ala Leu Asp Thr Leu		
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<210> 2979

<211> 2191

<212> DNA

<213> Homo sapiens

<400> 2979

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<210> 2980
 <211> 140
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asn Ala Arg Arg Ala Arg Val Gly Arg Ala Glu Cys Leu Leu Ser Gly
 50 55 60
 Arg Pro Pro Thr Ala Val Leu Pro Arg Leu Val Glu Asn Leu Lys Ala
 65 70 75 80
 Arg Val Pro Val Pro Gly His Thr Glu Pro Leu Trp Ser Glu Gly Thr
 85 90 95
 Ala Pro Gly Gln Gly Leu Trp Ser His Ala Pro Ala Asp Gly Ser Leu
 100 105 110
 Met Asn Leu Ile Arg Thr Leu Val Gly Ala Val Val Phe Glu Leu Leu
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 Ser Met Cys Phe Gly Asp Gly Ala Gly Ala Ala Cys
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 <212> DNA
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<210> 2982

<211> 107

<212> PRT

<213> Homo sapiens

<400> 2982

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			20					25					30		
His	Ser	Ser	Ser	Ser	Glu	Glu	Ser	Thr	Lys	Arg	Thr	Ser	His	Ser	Lys
			35				40					45			
Leu	Pro	Glu	Gln	Glu	Ala	Ala	Glu	Ala	Asp	Leu	Ser	Asn	Met	Glu	Arg
	50					55				60					
Val	Ser	Leu	Ser	Thr	Ala	Asp	Pro	Gln	Gly	Val	Thr	Tyr	Ala	Glu	Leu
65					70				75					80	
Ser	Thr	Ser	Ala	Leu	Ser	Glu	Ala	Ala	Ser	Asp	Thr	Thr	Gln	Glu	Pro
				85				90						95	
Pro	Gly	Ser	His	Glu	Tyr	Ala	Ala	Leu	Lys	Val					
			100					105							

<210> 2983

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<212> DNA

<213> Homo sapiens

<400> 2983

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35 40 45
Lys Arg Phe Ile Gly Asp Tyr Glu Pro Asn Thr Gly Lys Leu Tyr Ser
50 55 60
Arg Leu Val Tyr Val Glu Gly Asp Gln Leu Ser Leu Gln Ile Gln Asp
65 70 75 80
Thr Pro Gly Gly Val Gln Ile Gln Asp Ser Leu Pro Gln Val Val Asp
85 90 95
Ser Leu Gln Met Arg Ala Val Ala Glu Gly Phe Leu Leu Val Tyr Ser
100 105 110
Ile Thr Asp Tyr Asp Ser Tyr Leu Ser Ile Arg Pro Leu Tyr Gln His
115 120 125
Ile Arg Lys Val His Pro Asp Ser Lys Ala Pro Val Ile Ile Val Gly
130 135 140
Asn Lys Gly Asp Leu Leu His Ala Arg Gln Val Gln Thr Gln Asp Gly
145 150 155 160
Ile Gln Leu Ala Asn Glu Leu Gly Ser Leu Phe Leu Glu Ile Ser Thr
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<211> 988

<212> PRT

<213> Homo sapiens

<400> 2986

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Ile	Thr	Gly	Leu	Pro	Leu	Asp	Asn	Pro	Ser	Val	Leu	Ser	Gly
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<211> 1016

<212> DNA

<213> Homo sapiens

<400> 2987

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<212> PRT

<213> Homo sapiens

<400> 2988

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 Ile Thr Lys Pro Glu Met Ile Phe Lys Leu Glu Gln Gly Ala Glu Pro
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<213> Homo sapiens

<400> 2992

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<210> 2993

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<212> DNA

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<400> 2993

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<212> PRT
<213> Homo sapiens

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Ile Gly Arg Gly Ser Phe Lys Thr Val Tyr Arg Gly Leu Asp Thr Asp
50 55 60
Thr Thr Val Glu Val Ala Trp Cys Glu Leu Gln Thr Arg Lys Leu Ser
65 70 75 80
Arg Ala Glu Arg Gln Arg Phe Ser Glu Glu Val Glu Met Leu Lys Gly
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His Ser Arg Val Pro Pro Ile Leu His Arg Asp Leu Lys Cys Asp Asn
165 170 175
Val Phe Ile Thr Gly Pro Thr Gly Ser Val Lys Ile Gly Asp Leu Gly
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Val Asp Val Tyr Ala
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<212> DNA
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<211> 101
<212> PRT
<213> Homo sapiens

<400> 2996
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Pro Pro Pro Pro Arg Phe Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser
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Ser Trp Asp Ser Asp Arg Cys Leu Pro Pro His Pro Gly Asp Phe Cys
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<210> 2997
<211> 800
<212> DNA
<213> Homo sapiens

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120
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180
acccccacac caagggagac cagcacctcc caggagatcc actcagccac aaagccaagc
240
actgttcctt acaaggcact cactagtgcc acgattgagg actccatgac acaagtcattg
300
tcctctagca gaggacctag ccctgatcag tccacaatgt cacaagacat atccactgaa
360
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420
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540
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600
ccgcctctg cctctttctc actggcttca cctgtcttga cctcattttt ttcgtttttt
660
gccattccc aaaaacctcc accttttttg gttcctgggc aaactttttc cctagggctg
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 780
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 800

<210> 2998

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2998

Thr	Gln	Met	Gly	Thr	Ile	Ser	Ala	Arg	Gln	Glu	Phe	Tyr	Ser	Ser	Tyr
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Pro	Gly	Leu	Pro	Glu	Pro	Ser	Lys	Val	Thr	Ser	Pro	Val	Val	Thr	Ser
			20					25					30		
Ser	Thr	Ile	Lys	Asp	Ile	Val	Ser	Thr	Thr	Ile	Pro	Ala	Ser	Ser	Glu
		35					40					45			
Ile	Thr	Arg	Ile	Glu	Met	Glu	Ser	Thr	Ser	Thr	Leu	Thr	Pro	Thr	Pro
	50					55					60				
Arg	Glu	Thr	Ser	Thr	Ser	Gln	Glu	Ile	His	Ser	Ala	Thr	Lys	Pro	Ser
65					70					75				80	
Thr	Val	Pro	Tyr	Lys	Ala	Leu	Thr	Ser	Ala	Thr	Ile	Glu	Asp	Ser	Met
				85					90					95	
Thr	Gln	Val	Met	Ser	Ser	Ser	Arg	Gly	Pro	Ser	Pro	Asp	Gln	Ser	Thr
			100					105					110		
Met	Ser	Gln	Asp	Ile	Ser	Thr	Glu	Val	Ile	Thr	Arg	Leu	Ser	Thr	Ser
		115					120					125			
Pro	Ile	Lys	Thr	Glu	Ser	Thr	Glu	Met	Thr	Ile	Thr	Thr	Gln	Thr	Gly
	130					135						140			
Ser	Pro	Gly	Ala	Thr	Ser	Arg	Gly	Thr	Leu	Thr	Leu	Asp	Thr	Ser	Thr
145					150					155				160	
Thr	Phe	Met	Ser	Gly	Thr	His	Ser	Thr	Ala	Ser	Gln	Arg	Phe	Ser	His
				165					170					175	
Ser	Gln	Met	Thr	Ala	Leu	Met	Ser	Arg	Thr	Pro	Gly	Asp	Val	Pro	Trp
			180					185					190		
Leu	Thr	His	Pro	Ser	Gly	Glu	Glu	Pro	Ala	Ser	Ala	Ser	Phe	Ser	Leu
		195				200						205			
Ala	Ser	Pro	Val	Leu	Thr	Ser	Phe	Phe	Ser	Phe	Phe	Ala	His	Ser	Gln
	210					215					220				
Lys	Pro	Pro	Pro	Phe	Leu	Val	Pro	Gly	Gln	Thr	Phe	Ser	Leu	Gly	Leu
225					230						235			240	
Gly	Lys	Pro	Lys	Met	Trp	Gly	Gln	Pro	Arg	Thr	Glu	Thr	Phe	Pro	Pro
				245					250					255	
Met	Asp	Asn	Leu	Phe	Glu	Lys	Gly	Pro	Phe						
			260					265							

<210> 2999

<211> 550

<212> DNA

<213> Homo sapiens

<400> 2999

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 120
 tgaggggtgc actgaggaca gcccagtgc ggctgcagg cacccttaa catgaacagc
 180
 ctggtcacca tgaacagcag caggaggcag acaggctcct ggggtgaaag aagctgggtcc
 240
 acagtgaaga ccacactcca agccaggga agcctgaagc ctgggggatg ggtcgccagt
 300
 ccagaaacc gcaagggcaa cttgtggtgc tttccctgg gccacccat ggccgccc
 360
 ggacgaattg gcatgcactt tctccctct gagggccata aaagcccctg ggctcagcca
 420
 gagctgagcg gatatcagga cgacaagctg cacagaggta ctaccatac caaggcctcc
 480
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<210> 3000

<211> 167

<212> PRT

<213> Homo sapiens

<400> 3000

Met	Cys	Ser	Ser	Gln	Gln	Arg	Gly	Gly	Leu	Gly	Met	Gly	Ser	Thr	Ser
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Val	Gln	Leu	Val	Val	Leu	Ile	Ser	Ala	Gln	Leu	Trp	Leu	Ser	Pro	Gly
			20					25					30		
Ala	Phe	Met	Gly	Leu	Arg	Gly	Glu	Lys	Val	His	Ala	Asn	Ser	Ser	Met
		35					40					45			
Gly	Gly	His	Gly	Trp	Ala	Gln	Gly	Lys	Ala	Pro	Gln	Val	Ala	Leu	Ala
	50					55					60				
Val	Ser	Gly	Thr	Gly	Asp	Pro	Ser	Pro	Arg	Leu	Gln	Ala	Phe	Pro	Gly
65					70					75				80	
Leu	Glu	Val	Gly	Leu	His	Cys	Gly	Pro	Ala	Ser	Phe	His	Pro	Gly	Ala
			85						90					95	
Cys	Leu	Pro	Pro	Ala	Ala	Val	His	Gly	Asp	Gln	Ala	Val	His	Val	Lys
			100						105				110		
Gly	Cys	Leu	Gln	Ala	Ser	Thr	Gly	Leu	Ser	Ser	Val	His	Pro	Ser	Ala
		115					120					125			
Ser	Phe	Pro	Cys	Leu	Ser	Val	Pro	Lys	Ala	Trp	Arg	Gly	Pro	Lys	Trp
	130					135					140				
Gln	Gly	Gly	Trp	His	Val	Ser	Thr	Thr	Pro	Ser	Met	Cys	Thr	Leu	Ser
145					150					155					160
Trp	Ala	Val	Thr	Ala	Pro	Gly									
						165									

<210> 3001

<211> 1092

<212> DNA

<213> Homo sapiens

<400> 3001

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 120
 gaagtacaga ggttgagccc ctatgtatgc ctgggggagt cccagaaagt ggaatcccaa
 180
 ccttgctcag ctcaccagtg tttcttctat aaccagaca ttgcaaagac agcagtaccc
 240
 actgaggcat ccagcccagc tcaggccctg ccaccnca gtaccaaagc atcattgtca
 300
 ggcaagggat acagaacaca gtgctctcac cagactgcag cttgggggac acccagcacg
 360
 gagagaagct gaggcggaac tgcactatct accggccctg gttctcccc tacagctact
 420
 tcgtgtgtgc agacaaagag agccagctgg aggcctatga cttcccagag gtgcagcagg
 480
 atgagggcaa gtgggacaac tgcctttctg aggacatggc tgagaacatc tgttcgtcct
 540
 cttctcccc agagaacact tgccctcgag aagccaccaa gaaatccagg catggcctgg
 600
 actccatcac atcccaggac atcctaattg cttccagggtg gcaccagca cagcagaatg
 660
 gctacaagtg cgtggcctgc tgccgcatgt accccaccct ggacttcctc aagagccaca
 720
 tcaagagggg cttcaggag ggcttcagct gcaaggtgta ctaccgcaag ctcaaagccc
 780
 tctggagcaa ggagcagaag gccgggctgg gagacaggct ctctccggc agctgccagg
 840
 cttcaatag tctgtctgaa caccttaggc aaattggcgg tgaagcctac ttatgtctct
 900
 agagagatgc caataaagtt agtcacagcc ttctgtccag tctgaggtca cccgcacag
 960
 cctgtgtcc tccccagaac cgggctctca tcaccttgg ctaatggttg cctagcaaca
 1020
 ccaggcacac accctccctt ttctctcttt taaaaataaa gacaatactt gaagtttggg
 1080
 aaaatcaaaa aa
 1092

<210> 3002

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3002

Met Ala Pro Phe Arg Ile Pro Gln Asp Val Ile His Asn Ser Ser Ala
 1 5 10 15
 Trp Leu Ser Leu Lys Gly His Cys Ser Val Ser Ala Leu Arg Cys Leu
 20 25 30
 Glu Val Gln Arg Leu Ser Pro Tyr Val Cys Leu Gly Glu Ser Gln Lys
 35 40 45
 Val Glu Ser Gln Pro Cys Ser Ala His Gln Cys Phe Phe Tyr Asn Pro
 50 55 60
 Asp Ile Ala Lys Thr Ala Val Pro Thr Glu Ala Ser Ser Pro Ala Gln

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<400> 3004
Met Glu Pro Arg Ala Val Ala Glu Ala Val Glu Thr Gly Glu Glu Asp
 1                    5                      10              15
Val Ile Met Glu Ala Leu Arg Ser Tyr Asn Gln Glu His Ser Gln Ser
 20                      25              30
Phe Thr Phe Asp Asp Ala Gln Gln Glu Asp Arg Lys Arg Leu Ala Glu
 35                      40              45
Leu Leu Val Ser Val Leu Glu Gln Gly Leu Pro Pro Ser His Arg Val
 50                      55              60
Ile Trp Leu Gln Ser Val Arg Ile Leu Ser Arg Asp Arg Asn Cys Leu
 65                      70              75              80
Asp Pro Phe Thr Ser Arg Gln Ser Leu Gln Ala Leu Ala Cys Tyr Ala
 85                      90              95
Asp Ile Ser Val Ser Glu Gly Ser Val Pro Glu Ser Ala Asp Met Asp
 100                      105              110
Val Val Leu Glu Ser Leu Lys Cys Leu Cys Asn Leu Val Leu Ser Ser
 115                      120              125
Pro Val Ala Gln Met Leu Ala Ala Glu Ala Arg Leu Val Val Lys Leu

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130 135 140
 Thr Glu Arg Val Gly Leu Tyr Arg Glu Arg Ser
 145 150 155

<210> 3005

<211> 799

<212> DNA

<213> Homo sapiens

<400> 3005

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 gacaacagtg acaacgtgga actcaagttc aatctggacc agtacgtcaa caagcggtag
 120
 ccaggcctcg tgaagattgt ccgcaacagc cggcgggaag gactgatccg cgcgcggctg
 180
 cagggctgga aggcggccac cgccccagtc gtcggcttct ttgatgcca cgtcgagttc
 240
 aacacgggct gggccgagcc cgcactgtcg cggatccgag aggaccggcg tcgcatcgtg
 300
 ctgccagcca tcgacaacat caagtacagc acgtttgagg tgcagcagta tgcgaacgcc
 360
 gcccatggct acaactgggg cctctggtgc atgtacatca tcccccgca ggactggctg
 420
 gaccgcggcg acgagtcagc acccatcagg accccagcca tgatcggctg ctccttcgta
 480
 gtggaccgcg agtacttcgg agacattggg ctgctggacc ccggcatgga ggtgtatggc
 540
 ggcgagaacg tagaactggg catgaggggtg tggcagtgtg gcggcagcat ggaggtgctg
 600
 ccctgctccc gcgtggccca catcgagcgc accaggaagc cctacaacaa cgacattgac
 660
 tactacgcca agcgcaacgc cctgcgcacc gccgaggtgt ggatggatga cttcaagtc
 720
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 780
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 799

<210> 3006

<211> 266

<212> PRT

<213> Homo sapiens

<400> 3006

Val His Ser Val Val Asn His Thr Pro Ser Gln Leu Leu Lys Glu Val
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 Ile Leu Val Asp Asp Asn Ser Asp Asn Val Glu Leu Lys Phe Asn Leu
 20 25 30
 Asp Gln Tyr Val Asn Lys Arg Tyr Pro Gly Leu Val Lys Ile Val Arg
 35 40 45
 Asn Ser Arg Arg Glu Gly Leu Ile Arg Ala Arg Leu Gln Gly Trp Lys
 50 55 60
 Ala Ala Thr Ala Pro Val Val Gly Phe Phe Asp Ala His Val Glu Phe

```

65          70          75          80
Asn Thr Gly Trp Ala Glu Pro Ala Leu Ser Arg Ile Arg Glu Asp Arg
          85          90          95
Arg Arg Ile Val Leu Pro Ala Ile Asp Asn Ile Lys Tyr Ser Thr Phe
          100          105          110
Glu Val Gln Gln Tyr Ala Asn Ala Ala His Gly Tyr Asn Trp Gly Leu
          115          120          125
Trp Cys Met Tyr Ile Ile Pro Pro Gln Asp Trp Leu Asp Arg Gly Asp
          130          135          140
Glu Ser Ala Pro Ile Arg Thr Pro Ala Met Ile Gly Cys Ser Phe Val
145          150          155          160
Val Asp Arg Glu Tyr Phe Gly Asp Ile Gly Leu Leu Asp Pro Gly Met
          165          170          175
Glu Val Tyr Gly Gly Glu Asn Val Glu Leu Gly Met Arg Val Trp Gln
          180          185          190
Cys Gly Gly Ser Met Glu Val Leu Pro Cys Ser Arg Val Ala His Ile
          195          200          205
Glu Arg Thr Arg Lys Pro Tyr Asn Asn Asp Ile Asp Tyr Tyr Ala Lys
          210          215          220
Arg Asn Ala Leu Arg Thr Ala Glu Val Trp Met Asp Asp Phe Lys Ser
225          230          235          240
His Val Tyr Met Ala Trp Asn Ile Pro Met Ser Asn Pro Gly Val Asp
          245          250          255
Phe Gly Asp Val Ser Glu Arg Leu Ala Leu
          260          265

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<210> 3007

<211> 536

<212> DNA

<213> Homo sapiens

<400> 3007

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120
actcagctta ttgacctggg agcagacatt agtttgcgga gtcgctggac aaacatgaat
180
gctttgcatt atgctgctta ttttgatgtc cctgaactta taagagtgat ttgaaaaca
240
tcgaaaccaa aagatgtgga tgccccttgc agtgatttta attttggaac agctttgcat
300
attgcagcat acaacttgtg tgcaggtgct gtgaagtgcc tcttgaggca gggagcaaat
360
cctgcattta ggaatgacaa aggacagatc cctgctgatg ttgttccaga cccagtagat
420
atgccgtag agatggctga cgccgcagcc actgctaagg aaatcaagca gatgcttcta
480
gatgcggtgc ctctgtcatg taacatctca aaggccatgc tcccccttc acgcgt
536

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<210> 3008

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3008

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Met Thr Leu Leu His Tyr Thr Cys Lys Ser Gly Ala His Gly Ile Gly
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Asp Val Glu Thr Ala Val Lys Phe Ala Thr Gln Leu Ile Asp Leu Gly
      20           25           30
Ala Asp Ile Ser Leu Arg Ser Arg Trp Thr Asn Met Asn Ala Leu His
      35           40           45
Tyr Ala Ala Tyr Phe Asp Val Pro Glu Leu Ile Arg Val Ile Leu Lys
      50           55           60
Thr Ser Lys Pro Lys Asp Val Asp Ala Pro Cys Ser Asp Phe Asn Phe
      65           70           75           80
Gly Thr Ala Leu His Ile Ala Ala Tyr Asn Leu Cys Ala Gly Ala Val
      85           90           95
Lys Cys Leu Leu Glu Gln Gly Ala Asn Pro Ala Phe Arg Asn Asp Lys
      100          105          110
Gly Gln Ile Pro Ala Asp Val Val Pro Asp Pro Val Asp Met Pro Leu
      115          120          125
Glu Met Ala Asp Ala Ala Ala Thr Ala Lys Glu Ile Lys Gln Met Leu
      130          135          140
Leu Asp Ala Val Pro Leu Ser Cys Asn Ile Ser Lys Ala Met Leu Pro
      145          150          155          160
Pro Ser Arg

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<210> 3009

<211> 1335

<212> DNA

<213> Homo sapiens

<400> 3009

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120
catggcagta gtctcctcgt tctccgcgcg cgctagccta gctgagtcgc cggcttctgc
180
gctaggggct cccaccgcct ccgcaggcta aggagccgct gccaccaacg agctgtgagg
240
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360
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420
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480
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540
cttataagtg ctttttccag actgacgcgt ttggatgatt tcacctgtaa aaaaataggg
600
tctggcttct tttctgaagt gttcaaggta cgacaccgag cttctgggtca ggtgatggct
660

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ctttaagatga acacattgag cagtaaccgg gcaaacaatgc tgaaagaagt acagctcatg
 720
 aatagactct cccatcccaa catccttagg ttcattgggtg tatgtgttca tcaaggacaa
 780
 ttgcatgcac ttacagagta tatcaactcc gggaacctgg aacagttgct agacagtaac
 840
 ctgcatttgc cttggactgt gagggtaaaa ctggcctatg acatagcagt gggcctcagc
 900
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 1200
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 1335

<210> 3010

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3010

Met	Asp	Arg	Ser	Lys	Arg	Asn	Ser	Ile	Ala	Gly	Phe	Pro	Pro	Arg	Val
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Glu	Arg	Leu	Glu	Phe	Glu	Gly	Gly	Gly	Gly	Gly	Glu	Gly	Asn	Val	
		20				25						30			
Ser	Gln	Val	Gly	Arg	Val	Trp	Pro	Ser	Ser	Tyr	Arg	Ala	Leu	Ile	Ser
		35				40					45				
Ala	Phe	Ser	Arg	Leu	Thr	Arg	Leu	Asp	Asp	Phe	Thr	Cys	Lys	Lys	Ile
	50					55					60				
Gly	Ser	Gly	Phe	Phe	Ser	Glu	Val	Phe	Lys	Val	Arg	His	Arg	Ala	Ser
65					70				75					80	
Gly	Gln	Val	Met	Ala	Leu	Lys	Met	Asn	Thr	Leu	Ser	Ser	Asn	Arg	Ala
			85					90					95		
Asn	Met	Leu	Lys	Glu	Val	Gln	Leu	Met	Asn	Arg	Leu	Ser	His	Pro	Asn
		100					105					110			
Ile	Leu	Arg	Phe	Met	Gly	Val	Cys	Val	His	Gln	Gly	Gln	Leu	His	Ala
	115					120					125				
Leu	Thr	Glu	Tyr	Ile	Asn	Ser	Gly	Asn	Leu	Glu	Gln	Leu	Leu	Asp	Ser
	130				135					140					
Asn	Leu	His	Leu	Pro	Trp	Thr	Val	Arg	Val	Lys	Leu	Ala	Tyr	Asp	Ile
145				150					155					160	
Ala	Val	Gly	Leu	Ser	Tyr	Leu	His	Phe	Lys	Gly	Ile	Phe	His	Arg	Asp
			165					170					175		
Leu	Thr	Ser	Lys	Asn	Cys	Leu	Ile	Lys	Arg	Asp	Glu	Asn	Gly	Tyr	Ser

	180		185		190
Ala Val Val	Ala Asp Phe Gly Leu	Ala Glu Lys Ile	Pro Asp Val Ser		
	195	200	205		
Met Gly Ser	Glu Lys Leu Ala Val	Val Gly Ser	Pro Phe Trp Met Ala		
	210	215	220		
Pro Glu Val	Leu Arg Asp Glu Pro	Tyr Asn Glu Lys Ala	Asp Val Phe		
	225	230	235	240	
Ser Tyr Gly	Ile Ile Leu Cys Glu	Ile Ile Val Arg Ile	Gln Ala Asp		
	245	250	255		
Pro Asp Tyr	Leu Pro Arg Thr Glu	Asn Phe Gly Leu	Asp Tyr Asp Ala		
	260	265	270		
Phe Gln His	Met Val Gly Asp Cys	Pro Pro Asp Phe	Leu Gln Leu Thr		
	275	280	285		
Phe Asn Cys	Cys Asn Val Ser Val	Phe Leu Pro Leu	Pro Phe Ile Arg		
	290	295	300		
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	305	310			

<210> 3011

<211> 3253

<212> DNA

<213> Homo sapiens

<400> 3011

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240
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300
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360
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420
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840
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900

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<210> 3012

<211> 870

<212> PRT

<213> Homo sapiens

<400> 3012

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Leu	Glu	Gln	Asp	Thr	Gln	Gly	Leu	Asp	Gly	Trp	Trp	Leu	Cys	Ser	Leu
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His	Gly	Arg	Gln	Gly	Ile	Val	Pro	Gly	Asn	Arg	Leu	Lys	Ile	Leu	Val
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Gly	Met	Tyr	Asp	Lys	Lys	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Pro	Pro	Ala
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Thr	Pro	Ala	Gln	Pro	Gln	Pro	Gly	Leu	His	Ala	Pro	Ala	Pro	Pro	Ala
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Ser	Gln	Tyr	Thr	Pro	Met	Leu	Pro	Asn	Thr	Tyr	Gln	Pro	Gln	Pro	Asp
			100					105					110		
Ser	Val	Tyr	Leu	Val	Pro	Thr	Pro	Ser	Lys	Ala	Gln	Gln	Gly	Leu	Tyr
			115					120					125		
Gln	Val	Pro	Gly	Pro	Ser	Pro	Gln	Phe	Gln	Ser	Pro	Pro	Ala	Lys	Gln
	130						135					140			
Thr	Ser	Thr	Phe	Ser	Lys	Gln	Thr	Pro	His	His	Pro	Phe	Pro	Ser	Pro
145					150					155				160	
Ala	Thr	Asp	Leu	Tyr	Gln	Val	Pro	Pro	Gly	Pro	Gly	Gly	Pro	Ala	Gln

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 Asp Ile Tyr Gln Val Pro Pro Ser Ala Gly Met Gly His Asp Ile Tyr
 180 185 190
 Gln Val Pro Pro Ser Met Asp Thr Arg Ser Trp Glu Gly Thr Lys Pro
 195 200 205
 Pro Ala Lys Val Val Val Pro Thr Arg Val Gly Gln Gly Tyr Val Tyr
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 Leu Ala Pro Gly Pro Gln Asp Ile Tyr Asp Val Pro Pro Val Arg Gly
 245 250 255
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 260 265 270
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 Val Pro Pro Ser Val Glu Lys Gly Leu Pro Pro Ser Asn His His Ala
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 325 330 335
 Lys Pro Phe Asp Pro Ala Arg Thr Pro Leu Val Leu Gly Ala Pro Pro
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 Gly Ser Thr Arg Ser Ser Gln Ser Ala Ser Ser Leu Glu Val Ala Gly
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 Pro Gly Arg Glu Pro Leu Glu Glu Val Ala Val Glu Ala Leu Ala
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 Arg Leu Gln Gln Gly Val Ser Ala Thr Val Ala His Leu Leu Asp Leu
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 Ala Gly Ser Ala Gly Ala Thr Gly Gly Trp Arg Ser Pro Ser Glu Pro
 485 490 495
 Gln Glu Pro Leu Val Gln Asp Leu Gln Ala Ala Val Ala Val Gln
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 Ser Ala Val His Glu Leu Leu Glu Phe Ala Arg Ser Ala Val Gly Asn
 515 520 525
 Ala Ala His Thr Ser Asp Arg Ala Leu His Ala Lys Leu Ser Arg Gln
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 Leu Gln Lys Met Glu Asp Val His Gln Thr Leu Val Ala His Gly Gln
 545 550 555 560
 Ala Leu Asp Ala Gly Arg Gly Gly Ser Gly Ala Thr Leu Glu Asp Leu
 565 570 575
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 Leu Ala Ser Phe Leu His Gly Asn Ala Ser Leu Leu Phe Arg Arg Thr

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Lys	Ala	Thr	Ala	Pro	Gly	Pro	Glu	Gly	Gly	Gly	Thr	Leu	His	Pro	Asn
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Pro	Thr	Asp	Lys	Thr	Ser	Ser	Ile	Gln	Ser	Arg	Pro	Leu	Pro	Ser	Pro
625						630					635				
Pro	Lys	Phe	Thr	Ser	Gln	Asp	Ser	Pro	Asp	Gly	Gln	Tyr	Glu	Asn	Ser
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Glu	Glu	Phe	Glu	Lys	Thr	Gln	Lys	Glu	Leu	Leu	Glu	Lys	Gly	Asn	Ile
675						680					685				
Thr	Arg	Gln	Gly	Lys	Ser	Gln	Leu	Glu	Leu	Gln	Gln	Leu	Lys	Gln	Phe
690						695					700				
Glu	Arg	Leu	Glu	Gln	Glu	Val	Ser	Arg	Pro	Ile	Asp	His	Asp	Leu	Ala
705						710					715				
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725						730					735				
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Ala	Asn	Leu	Thr	Thr	Leu	Thr	Asn	Ala	Val	Asp	Ala	Phe	Phe	Thr	Ala
755						760					765				
Val	Ala	Thr	Asn	Gln	Pro	Pro	Lys	Ile	Phe	Val	Ala	His	Ser	Lys	Phe
770						775					780				
Val	Ile	Leu	Ser	Ala	His	Lys	Leu	Val	Phe	Ile	Gly	Asp	Thr	Leu	Ser
785						790					795				
Arg	Gln	Ala	Lys	Ala	Ala	Asp	Val	Arg	Ser	Gln	Val	Thr	His	Tyr	Ser
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820						825					830				
Ala	Ala	Leu	Gln	Tyr	Pro	Ser	Pro	Ser	Ala	Ala	Gln	Asp	Met	Val	Glu
835						840					845				
Arg	Val	Lys	Glu	Leu	Gly	His	Ser	Thr	Gln	Gln	Phe	Arg	Arg	Val	Leu
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Gly	Gln	Leu	Ala	Ala	Ala										
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<210> 3013

<211> 248

<212> DNA

<213> Homo sapiens

<400> 3013

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120

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248

<210> 3014

<211> 82
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Lys Ala Ala Gln Gln Ala Gly Trp Gly Leu Leu Leu Ala Arg Arg Trp
 50 55 60
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<210> 3015
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<400> 3016
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 35 40 45
 Val Pro Gly Gly Met Val His Pro Ile Phe Leu Glu Pro Val Thr Val

50 55 60
 Gln Leu Gly Gln Val Lys Phe Ser Cys Glu Asn Ala Ser Pro Asp Thr
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<210> 3017

<211> 4796

<212> DNA

<213> Homo sapiens

<400> 3017

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<210> 3018

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3018

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		20						25					30		
Gln	Arg	Trp	Ile	Thr	Ile	Gln	His	Arg	Trp	Ser	Ser	Ala	Leu	His	Cys
		35					40					45			
Gln	Gly	Leu	Thr	Pro	Thr	Pro	Gly	Ala	Leu	Pro	Asn	Tyr	Leu	Lys	Val
	50					55					60				
Lys	Ala	Asn	Arg	Ala	Ile	Pro	Gln	Ala	Val	Thr	Ser	Thr	Arg	Leu	Gly
65					70					75				80	
Thr	Thr	Lys	Pro	Pro	Cys	Thr	Ile	Thr	Pro	Pro	Cys	Arg	Ala	Val	Arg
				85					90					95	
Ser	Thr	Ser	Pro	Arg	Leu	Pro	Thr								
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<210> 3019

<211> 882

<212> DNA

<213> Homo sapiens

<400> 3019

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 882

<210> 3020

<211> 58

<212> PRT

<213> Homo sapiens

<400> 3020

Gln	Gly	Thr	His	Glu	Leu	Pro	Gly	Trp	Pro	Gly	Pro	Cys	Cys	Gly	Thr
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Gly	Pro	Ala	Pro	Val	Leu	Leu	Ser	Ala	Arg	Pro	Gln	Gly	Pro	Ala	Arg
			20					25					30		
Asp	Pro	Ala	Arg	Pro	Arg	Phe	Leu	Ala	Cys	His	His	Arg	Gln	Thr	Cys
		35					40					45			
Gln	Pro	Leu	Pro	Ala	Gly	Leu	Pro	Gly	Arg						
		50				55									

<210> 3021

<211> 1008

<212> DNA

<213> Homo sapiens

<400> 3021

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 120
 gggcatgtgg gtgccttggg gtagggtaaa ggttccatct tgatcgcggt ggtgtttccc
 180
 aagtgtatac actcaccaaa actatactta gaactcaaaa ctgcgcaaat atatacttaa
 240
 aatggatgca gttgggttat tataaattat acctcaataa agttgattaa aaacatcaat
 300
 tcctcagaaa attcttttct gaccactccc ctctcagacg aggtcggggc tcctgggtatg
 360
 catacccata cccactacaa cctgtattta ttttttttga aacatgggtct ctttctgtcg
 420
 tccaggctgg agtgcagtgg cgcaatcatg gatcactgca gccttgacct tcctgggtca
 480

agtgatcctc cccggctcacc cccagtagct ggaaccacag gcgcgcttcc acaccggaaa
 540
 gcccatcttc tagaggcgga aaccgaagcg cccagtggga aaggcgaccc gccggggatg
 600
 cgggggtgctc aacgcgctgc cacctggggc ccaacgcgtt gacctcgcg tcaggttgct
 660
 tccgcggact acggttctgg ctgctagct ctggaaggga gcaccgggag ggaatggtgg
 720
 caactcccaa ggaggggacc cagggatccg agaaaggaag acttggggta ggtggggttg
 780
 gattttgact ggagagaaga aagggtcagg agtgcagggc gggtagctgg ggagctgcgt
 840
 ggactcgcg agacgggaag caggcgctg ctggcggtga cctggggccg gagaggaacg
 900
 ctgggtcccc tccttgggag ttgccaccat tccctcccg tgctcccttc cagagctagc
 960
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 1008

<210> 3022

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3022

Met	His	Thr	His	Thr	His	Tyr	Asn	Leu	Tyr	Leu	Phe	Phe	Leu	Lys	His
1				5					10					15	
Gly	Leu	Phe	Leu	Ser	Ser	Arg	Leu	Glu	Cys	Ser	Gly	Ala	Ile	Met	Asp
			20					25					30		
His	Cys	Ser	Leu	Asp	Leu	Pro	Gly	Ser	Ser	Asp	Pro	Pro	Gly	Ser	Pro
		35					40					45			
Pro	Val	Ala	Gly	Thr	Thr	Gly	Ala	Leu	Pro	His	Arg	Lys	Ala	His	Phe
	50					55					60				
Leu	Glu	Ala	Glu	Thr	Glu	Ala	Pro	Ser	Gly	Lys	Gly	Asp	Pro	Pro	Gly
65					70					75				80	
Met	Arg	Gly	Ala	Gln	Arg	Ala	Ala	Thr	Trp	Gly	Pro	Thr	Arg		
				85					90						

<210> 3023

<211> 1834

<212> DNA

<213> Homo sapiens

<400> 3023

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 120
 tcagattttt ccctccagtt ggtttaattt ctatttccta aaacattaaa ataataatgg
 180
 aatgattgaa ataataaaca tttttcttat tcaagatttc gtcattggcta ttgtaaagga
 240
 aaccctagga aaatgggtgaa aacttgggca gaaaaagaaa tgaggaactt aatcaggcta
 300

aacacagcag agataccatg tccagaacca ataatgctaa gaagtcatgt tcttgtcatg
360
agtttcatcg gtaaagatga catgcctgca ccactcttga aaaatgtcca gttatcagaa
420
tccaaggctc gggagttgta cctgcaggctc attcagtaca tgagaagaat gtatcaggat
480
gccagacttg tccatgcaga tctcagtga ttttaacatgc tgtaccacgg tggaggcgtg
540
tatatcattg acgtgtctca gtccgtggag cagcaccacc cacatgcctt ggagttcttg
600
agaaaggatt gcgccaacgt caatgatttc tttatgaggc acagtgttgc tgtcatgact
660
gtgcgggagc tctttgaatt tgtcacagat ccattccatta cacatgagaa catggatgct
720
tatctctcaa aggccatgga aatagcatct caaaggacca aggaagaacg gtctagccaa
780
gatcatgtgg atgaagaggt gtttaagcga gcatatatct ctagaacctt gaatgaagt
840
aaaaattatg agagggatat ggacataatt atgaaattga aggaagagga catggccatg
900
aatgcccac aagataatat tctaccagac tgttacagga ttgaagaaag atttgcagg
960
agttcagaag gtccctgcac tctagaaaat caagtggagg aaaggacttg ttctgattca
1020
gaagatattg gaagctctga gtgctctgac acagactctg aagagcaggg agaccatgcc
1080
cgccccaa aacacaccac ggaccctgac attgataaaa aagaaagaaa aaagatggtc
1140
aaggaagccc agagagagaa aagaaaaaac aaaattccta aacatgtgaa aaaaagaaa
1200
gagaagacag ccaagacgaa aaaaggcaaa tagaatgaga accatattat gtacagtcat
1260
tttctcagtc tctttttctc gcctgaactc ttaagctgca tctggaagat ggcttattgg
1320
ttttaaccag attgtcatcg tggcactgtc tgtgaagacg gattcaaag ttttcatgta
1380
actatgtaaa aagctctaag ctctagagtc tagatccagt cactgactct gtctggtgtt
1440
gacagaggat ttattttaagc tattatttta ataaagaact ttgtacattt ttatttttat
1500
atttttttct cttacaaata tgcttttgga agcatgataa atgttttaat gtagtcaaca
1560
tctgtaactc ttacatgagt gtccagaggc actcatggga aaattgggtt tgctttcttt
1620
gtacacacca gagaccatc tgaggtcatc tgattataag gccatgttta tataaagga
1680
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1740
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1834

<210> 3024

<211> 347

<212> PRT

<213> Homo sapiens

<400> 3024

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Gly Asn Pro Arg Lys Met Val Lys Thr Trp Ala Glu Lys Glu Met Arg
      20          25          30
Asn Leu Ile Arg Leu Asn Thr Ala Glu Ile Pro Cys Pro Glu Pro Ile
      35          40          45
Met Leu Arg Ser His Val Leu Val Met Ser Phe Ile Gly Lys Asp Asp
      50          55          60
Met Pro Ala Pro Leu Leu Lys Asn Val Gln Leu Ser Glu Ser Lys Ala
      65          70          75          80
Arg Glu Leu Tyr Leu Gln Val Ile Gln Tyr Met Arg Arg Met Tyr Gln
      85          90          95
Asp Ala Arg Leu Val His Ala Asp Leu Ser Glu Phe Asn Met Leu Tyr
      100          105          110
His Gly Gly Gly Val Tyr Ile Ile Asp Val Ser Gln Ser Val Glu His
      115          120          125
Asp His Pro His Ala Leu Glu Phe Leu Arg Lys Asp Cys Ala Asn Val
      130          135          140
Asn Asp Phe Phe Met Arg His Ser Val Ala Val Met Thr Val Arg Glu
      145          150          155          160
Leu Phe Glu Phe Val Thr Asp Pro Ser Ile Thr His Glu Asn Met Asp
      165          170          175
Ala Tyr Leu Ser Lys Ala Met Glu Ile Ala Ser Gln Arg Thr Lys Glu
      180          185          190
Glu Arg Ser Ser Gln Asp His Val Asp Glu Glu Val Phe Lys Arg Ala
      195          200          205
Tyr Ile Pro Arg Thr Leu Asn Glu Val Lys Asn Tyr Glu Arg Asp Met
      210          215          220
Asp Ile Ile Met Lys Leu Lys Glu Glu Asp Met Ala Met Asn Ala Gln
      225          230          235          240
Gln Asp Asn Ile Leu Pro Asp Cys Tyr Arg Ile Glu Glu Arg Phe Val
      245          250          255
Arg Ser Ser Glu Gly Pro Cys Thr Leu Glu Asn Gln Val Glu Glu Arg
      260          265          270
Thr Cys Ser Asp Ser Glu Asp Ile Gly Ser Ser Glu Cys Ser Asp Thr
      275          280          285
Asp Ser Glu Glu Gln Gly Asp His Ala Arg Pro Lys Lys His Thr Thr
      290          295          300
Asp Pro Asp Ile Asp Lys Lys Glu Arg Lys Lys Met Val Lys Glu Ala
      305          310          315          320
Gln Arg Glu Lys Arg Lys Asn Lys Ile Pro Lys His Val Lys Lys Arg
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Lys Glu Lys Thr Ala Lys Thr Lys Lys Gly Lys
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<210> 3025

<211> 1370

<212> DNA

<213> Homo sapiens

<400> 3025

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120
agcttctgaa gcatctaggt gatcttctta aatctttgac aggaaagagt aggaaacttt
180
ttggcagact tttaacctggt gaatggactt gttttagaat caaggaaaag aagagaacat
240
ctcagtgaag aggatattct tcgaaataag gccatcatgg agagtgtgag taaagggtgga
300
aacataatgg aacagaattt tgagccgatt cgaagacagt ctcttacacc tcctcctcag
360
aacactatta catgggaaga atatatatct gctgaaaatg gaaaagctcc tcatctgggt
420
agagaattgg tgtgcaaaga gagtaagaaa acgttttaag ctacgatagc catgagccag
480
gaatttccct tagggataga gttattattg aatgttttag aagtagtagc tcccttcaag
540
cactttaaca agcttagaga atttgttcag atgaagcttc ctccaggctt tcctgtaaaa
600
ttagatatac ctgtgtttcc cacaatcaca gccactgtga cttttcagga gtttcgatac
660
gatgaatttg atggctccat ctttactata cctgatgact acaaggaaga cccaagccgt
720
tttctgac ttaactgac gtggaaaagg atgccgtcta accaaggaaa gaaaatacag
780
agaccctaga agtggatcca aatagaaggg acaaatgctt tcagtgaaga aaagggaatt
840
acacattgaa tcgacacatc agtaatacga tacagtgaag tgggcctcta ataagaattt
900
cagcgagttt tctgatgtgc cattttttgt ctttttaaaa atatacatat tataaatgta
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atagtttgac acattaatga ccctaagacc tgcgtatgtg aagcagctat gagtgtgtg
1020
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1080
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1140
atatggagcc cttttaaact tgtcatcttt atgcaagggt acattttataa atattccttc
1200
gagctttgtt ttcataaaat gtaactatg taacattatg tatagttcag taatttgaat
1260
gtttgttcaa tataatgaac tagaaggaat gcaattttct gtagatgaat gaaccaaag
1320
gtaaccatta aacaattgca ttttaaaaaa aaaaaaaaaa aaaaaaaaaa
1370

<210> 3026

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3026

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Met Glu Ser Leu Ser Lys Gly Gly Asn Ile Met Glu Gln Asn Phe Glu
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Pro Ile Arg Arg Gln Ser Leu Thr Pro Pro Pro Gln Asn Thr Ile Thr
      20             25             30
Trp Glu Glu Tyr Ile Ser Ala Glu Asn Gly Lys Ala Pro His Leu Gly
      35             40             45
Arg Glu Leu Val Cys Lys Glu Ser Lys Lys Thr Phe Lys Ala Thr Ile
      50             55             60
Ala Met Ser Gln Glu Phe Pro Leu Gly Ile Glu Leu Leu Leu Asn Val
65             70             75             80
Leu Glu Val Val Ala Pro Phe Lys His Phe Asn Lys Leu Arg Glu Phe
      85             90             95
Val Gln Met Lys Leu Pro Pro Gly Phe Pro Val Lys Leu Asp Ile Pro
      100            105            110
Val Phe Pro Thr Ile Thr Ala Thr Val Thr Phe Gln Glu Phe Arg Tyr
      115            120            125
Asp Glu Phe Asp Gly Ser Ile Phe Thr Ile Pro Asp Asp Tyr Lys Glu
      130            135            140
Asp Pro Ser Arg Phe Pro Asp Leu
145             150

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<210> 3027

<211> 1154

<212> DNA

<213> Homo sapiens

<400> 3027

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atccacgcca aggccttttg atcggccgtg ggtacatccg tctgagccgt tcctttccat
120
cgcagacggc ggcctccgcg gcgctctcca gtcatggact accggcgggt tctcatgagc
180
cgggtggtcc ccgggcaatt cgacgacgcg gactcctctg acagtgaaaa cagagacttg
240
aagacagtca aagagaagga tgacattctg tttgaagacc ttcaagacaa tgtgaatgag
300
aatggtgaag gtgaaataga agatgaggag gaggagggtt atgatgatga tgatgatgac
360
tgggactggg atgaaggagt tggaaaactc gccaaagggt atgtctggaa tggaggaagc
420
aaccacagg caaatcgaca gacctccgac agcagttcag ccaaatgtc tactccagca
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tccgtcataa ataaagtcac cgaaaagtct agacaaaagg aagcagatat gtatcgcatc
600
aaagataagg cagacagagc aactgtagaa cagggtgttg atcccagaac aagaatgatt
660
ttattcaaga tgttgactag aggaatcata acagagataa atggctgcat tagcacagga
720
aaagaagcta atgtatacca tgctagcaca gcaaatggag agagcagagc aatcaaaatt
780

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tataaaaactt ctatttttgggt gttcaaagat cgggataaat atgtaagtgg agaattcaga
 840
 tttcgtcatg gctattgttaa aggaaaccct aggaaaaatgg tgaaaacttg ggcagaaaaa
 900
 gaaatgagga acttaatcag gctaaacaca gcagagatac catgtccaga accaataatg
 960
 ctaagaagtc atgttcttgt catgagtttc atcggtaaag atgacatttc ttttcattca
 1020
 aggctgcac cactcttgaa aaatgtccag ttatcagaat ccaaggctcg ggagttgtac
 1080
 ctgcaggtea ttcagtacat gagaagaatg tatcaggatg ccagacttgt ccatgcagat
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 cgtcgggtgag aggc
 1154

<210> 3028

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3028

Met	Asp	Tyr	Arg	Arg	Leu	Leu	Met	Ser	Arg	Val	Val	Pro	Gly	Gln	Phe
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Asp	Asp	Ala	Asp	Ser	Ser	Asp	Ser	Glu	Asn	Arg	Asp	Leu	Lys	Thr	Val
		20						25				30			
Lys	Glu	Lys	Asp	Asp	Ile	Leu	Phe	Glu	Asp	Leu	Gln	Asp	Asn	Val	Asn
	35					40					45				
Glu	Asn	Gly	Glu	Gly	Glu	Ile	Glu	Asp	Glu	Glu	Glu	Gly	Tyr	Asp	
50					55				60						
Asp	Asp	Asp	Asp	Asp	Trp	Asp	Trp	Asp	Glu	Gly	Val	Gly	Lys	Leu	Ala
65				70					75					80	
Lys	Gly	Tyr	Val	Trp	Asn	Gly	Gly	Ser	Asn	Pro	Gln	Ala	Asn	Arg	Gln
			85					90					95		
Thr	Ser	Asp	Ser	Ser	Ser	Ala	Lys	Met	Ser	Thr	Pro	Ala	Asp	Lys	Val
			100					105					110		
Leu	Arg	Lys	Phe	Glu	Asn	Lys	Ile	Asn	Leu	Asp	Lys	Leu	Asn	Val	Thr
		115				120						125			
Asp	Ser	Val	Ile	Asn	Lys	Val	Thr	Glu	Lys	Ser	Arg	Gln	Lys	Glu	Ala
130					135						140				
Asp	Met	Tyr	Arg	Ile	Lys	Asp	Lys	Ala	Asp	Arg	Ala	Thr	Val	Glu	Gln
145				150					155					160	
Val	Leu	Asp	Pro	Arg	Thr	Arg	Met	Ile	Leu	Phe	Lys	Met	Leu	Thr	Arg
			165					170					175		
Gly	Ile	Ile	Thr	Glu	Ile	Asn	Gly	Cys	Ile	Ser	Thr	Gly	Lys	Glu	Ala
			180				185					190			
Asn	Val	Tyr	His	Ala	Ser	Thr	Ala	Asn	Gly	Glu	Ser	Arg	Ala	Ile	Lys
		195				200						205			
Ile	Tyr	Lys	Thr	Ser	Ile	Leu	Val	Phe	Lys	Asp	Arg	Asp	Lys	Tyr	Val
210					215					220					
Ser	Gly	Glu	Phe	Arg	Phe	Arg	His	Gly	Tyr	Cys	Lys	Gly	Asn	Pro	Arg
225				230					235					240	
Lys	Met	Val	Lys	Thr	Trp	Ala	Glu	Lys	Glu	Met	Arg	Asn	Leu	Ile	Arg
			245					250					255		
Leu	Asn	Thr	Ala	Glu	Ile	Pro	Cys	Pro	Glu	Pro	Ile	Met	Leu	Arg	Ser

	260		265		270										
His	Val	Leu	Val	Met	Ser	Phe	Ile	Gly	Lys	Asp	Asp	Ile	Ser	Phe	His
	275		280		285										
Ser	Arg	Pro	Ala	Pro	Leu	Leu	Lys	Asn	Val	Gln	Leu	Ser	Glu	Ser	Lys
	290		295		300										
Ala	Arg	Glu	Leu	Tyr	Leu	Gln	Val	Ile	Gln	Tyr	Met	Arg	Arg	Met	Tyr
305			310		315									320	
Gln	Asp	Ala	Arg	Leu	Val	His	Ala	Asp	Arg	Arg					
			325		330										

<210> 3029

<211> 344

<212> DNA

<213> Homo sapiens

<400> 3029

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120
acatttcccg aggaactaga tatgagtact tttattgatg ttgaagatga aaaatctcct
180
cagactgaaa gttgcactga caggggagca gaaaatgaag gtagttgtca cagtgatcag
240
atgagcaacg atttctccaa tgatgatggt gttgatgaag gaatctgttt tgaaaccaat
300
agtggaaactg aaaagatctc aaaatctgga cctgaaaaga attc
344

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<210> 3030

<211> 114

<212> PRT

<213> Homo sapiens

<400> 3030

Thr	Arg	Asp	Ala	Arg	Lys	Gly	Leu	Arg	Phe	Leu	His	Phe	Pro	Tyr	Leu
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Leu	Thr	Leu	Gln	Leu	Lys	Arg	Phe	Asp	Phe	Asp	Tyr	Thr	Thr	Met	His
		20						25					30		
Arg	Ile	Lys	Leu	Asn	Asp	Arg	Met	Thr	Phe	Pro	Glu	Glu	Leu	Asp	Met
		35				40						45			
Ser	Thr	Phe	Ile	Asp	Val	Glu	Asp	Glu	Lys	Ser	Pro	Gln	Thr	Glu	Ser
	50					55					60				
Cys	Thr	Asp	Arg	Gly	Ala	Glu	Asn	Glu	Gly	Ser	Cys	His	Ser	Asp	Gln
65				70					75					80	
Met	Ser	Asn	Asp	Phe	Ser	Asn	Asp	Asp	Gly	Val	Asp	Glu	Gly	Ile	Cys
			85					90					95		
Phe	Glu	Thr	Asn	Ser	Gly	Thr	Glu	Lys	Ile	Ser	Lys	Ser	Gly	Pro	Glu
			100					105					110		

Lys Asn

<210> 3031

<211> 567

<212> DNA

<213> Homo sapiens

<400> 3031

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 120
 gttggtcctg atgttattcc cctgccacac atctacggag ctgcaatcaa aggtgtggaa
 180
 gtgtttctgtc ctctggatcc cccgccgcca tatgaagctg tggtagacca gatggaccag
 240
 gagcagggat cttcattcca aatgtcagaa ggatcagaag ctgctgtgat cccattggat
 300
 ctgggtgca cacaagtgc tcaagatggg gacattccta acatacctgc cgaagaaaat
 360
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 420
 ccacccttga ggaccaggtc gaagagtgc cctgtgctcc atccttctga ggagagagct
 480
 gccccagtgc tcagctgtga agctgcaaca cagactgaaa ggagactgga tctggctgca
 540
 gtgactctga ggagaggctt gagatct
 567

<210> 3032

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3032

Ala	Glu	Glu	Ala	Glu	Asp	His	Gly	Arg	Ile	Pro	Asp	Pro	Asp	Asp	Phe
1				5					10					15	
Val	Pro	Pro	Val	Pro	Pro	Pro	Ser	Tyr	Phe	Ala	Thr	Phe	Tyr	Ser	Cys
			20					25					30		
Thr	Pro	Arg	Met	Asn	Arg	Arg	Leu	Val	Gly	Pro	Asp	Val	Ile	Pro	Leu
			35				40					45			
Pro	His	Ile	Tyr	Gly	Ala	Arg	Ile	Lys	Gly	Val	Glu	Val	Phe	Cys	Pro
	50					55				60					
Leu	Asp	Pro	Pro	Pro	Pro	Tyr	Glu	Ala	Val	Val	Ser	Gln	Met	Asp	Gln
65					70				75					80	
Glu	Gln	Gly	Ser	Ser	Phe	Gln	Met	Ser	Glu	Gly	Ser	Glu	Ala	Ala	Val
				85					90					95	
Ile	Pro	Leu	Asp	Leu	Gly	Cys	Thr	Gln	Val	Thr	Gln	Asp	Gly	Asp	Ile
			100					105					110		
Pro	Asn	Ile	Pro	Ala	Glu	Glu	Asn	Ala	Ser	Thr	Ser	Thr	Pro	Ser	Ser
		115					120					125			
Thr	Leu	Val	Arg	Pro	Ile	Arg	Ser	Arg	Arg	Ala	Leu	Pro	Pro	Leu	Arg
	130					135					140				
Thr	Arg	Ser	Lys	Ser	Asp	Pro	Val	Leu	His	Pro	Ser	Glu	Glu	Arg	Ala
145				150					155					160	
Ala	Pro	Val	Leu	Ser	Cys	Glu	Ala	Ala	Thr	Gln	Thr	Glu	Arg	Arg	Leu
				165					170					175	
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180

185

<210> 3033
 <211> 821
 <212> DNA
 <213> Homo sapiens

<400> 3033
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 120
 tactatgata aattatttaa ggaatactgc atagcagatc tcagtaaata taaagaaaaat
 180
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 240
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 300
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 360
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 420
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 480
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<212> PRT

<213> Homo sapiens

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<211> 1836

<212> DNA

<213> Homo sapiens

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<211> 142

<212> PRT

<213> Homo sapiens

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<211> 360

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<213> Homo sapiens

<400> 3042

Met	Lys	Ala	Leu	Ile	Leu	Val	Gly	Gly	Tyr	Gly	Thr	Arg	Leu	Arg	Pro
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Leu	Thr	Leu	Ser	Thr	Pro	Lys	Pro	Leu	Val	Asp	Phe	Cys	Asn	Lys	Pro
			20					25					30		
Ile	Leu	Leu	His	Gln	Val	Glu	Ala	Leu	Ala	Ala	Ala	Gly	Val	Asp	His
			35				40					45			
Val	Ile	Leu	Ala	Val	Ser	Tyr	Met	Ser	Gln	Val	Leu	Glu	Lys	Glu	Met
	50					55					60				
Lys	Ala	Gln	Glu	Gln	Arg	Leu	Gly	Ile	Arg	Ile	Ser	Met	Ser	His	Glu
65					70				75					80	
Glu	Glu	Pro	Leu	Gly	Thr	Ala	Gly	Pro	Leu	Ala	Leu	Ala	Arg	Asp	Leu
			85					90					95		
Leu	Ser	Glu	Thr	Ala	Asp	Pro	Phe	Phe	Val	Leu	Asn	Ser	Asp	Val	Ile
			100					105					110		
Cys	Asp	Phe	Pro	Phe	Gln	Ala	Met	Val	Gln	Phe	His	Arg	His	His	Gly
		115				120					125				
Gln	Glu	Gly	Ser	Ile	Leu	Val	Thr	Lys	Val	Glu	Glu	Pro	Ser	Lys	Tyr
	130				135					140					
Gly	Val	Val	Val	Cys	Glu	Ala	Asp	Thr	Gly	Arg	Ile	His	Arg	Phe	Val
145					150				155					160	
Glu	Lys	Pro	Gln	Val	Phe	Val	Ser	Asn	Lys	Ile	Asn	Ala	Gly	Met	Tyr
			165					170					175		
Ile	Leu	Ser	Pro	Ala	Val	Leu	Arg	Arg	Ile	Gln	Leu	Gln	Pro	Thr	Ser
		180					185						190		
Ile	Glu	Lys	Glu	Val	Phe	Pro	Ile	Met	Ala	Lys	Glu	Gly	Gln	Leu	Tyr
	195					200					205				
Ala	Met	Glu	Leu	Gln	Gly	Phe	Trp	Met	Asp	Ile	Gly	Gln	Pro	Lys	Asp
	210				215						220				
Phe	Leu	Thr	Gly	Met	Cys	Leu	Phe	Leu	Gln	Ser	Leu	Arg	Gln	Lys	Gln
225				230					235					240	
Pro	Glu	Arg	Leu	Cys	Ser	Gly	Pro	Gly	Ile	Val	Gly	Asn	Val	Leu	Val
			245					250					255		
Asp	Pro	Ser	Ala	Arg	Ile	Gly	Gln	Asn	Cys	Ser	Ile	Gly	Pro	Asn	Val
	260					265					270				
Ser	Leu	Gly	Pro	Gly	Val	Val	Val	Glu	Asp	Gly	Val	Cys	Ile	Arg	Arg

275 280 285
 Cys Thr Val Leu Arg Asp Ala Arg Ile Arg Ser His Ser Trp Leu Glu
 290 295 300
 Ser Cys Ile Val Gly Trp Arg Cys Arg Val Gly Gln Trp Val Arg Met
 305 310 315 320
 Glu Asn Val Thr Val Leu Gly Glu Asp Val Ile Val Asn Asp Glu Leu
 325 330 335
 Tyr Leu Asn Gly Ala Ser Val Leu Pro His Lys Ser Ile Gly Glu Ser
 340 345 350
 Val Pro Glu Pro Arg Ile Ile Met
 355 360

<210> 3043

<211> 394

<212> DNA

<213> Homo sapiens

<400> 3043

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 60
 tctcatgatg ccagcgcttc ctcttcactg gcgtctgacc caggagcagt ccagaatcag
 120
 cttctctgac ctcaactcaa ctcacgtgtc tttagactt taagggactt cctgttttag
 180
 ggtcttctgg ctgggtgtca ttgaatgggc agtgattctc taactttaga ctgatgttcc
 240
 ccagcctttg tttggggact cggaggcaga gtagacagtt acccttacct ctgggttggg
 300
 gagggtcata ttcttggtat cccagggagg tcaacagggg cttcattttt ctgagggact
 360
 agagggtctt gtggagctcc tgggacagag atct
 394

<210> 3044

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3044

Met Lys Pro Leu Leu Thr Ser Trp Gly Tyr Gln Glu Tyr Asp Pro Pro
 1 5 10 15
 Gln Pro Arg Gly Lys Gly Asn Cys Leu Leu Cys Leu Arg Val Pro Lys
 20 25 30
 Gln Arg Leu Gly Asn Ile Ser Leu Lys Leu Glu Asn His Cys Pro Phe
 35 40 45
 Asn Asp Thr Gln Pro Glu Asp Pro Lys Thr Gly Ser Pro Leu Lys Cys
 50 55 60
 Gln Arg His Val Ser Trp Ser Glu Val Arg Glu Ala Asp Ser Gly Leu
 65 70 75 80
 Leu Leu Gly Gln Thr Pro Val Lys Arg Lys Arg Trp His His Glu Thr
 85 90 95
 Ser Ser Phe Ser Pro Cys Leu Trp Leu Lys Ala Arg Ala Ser Arg Ser
 100 105 110
 Lys Glu Ile

115

<210> 3045
 <211> 605
 <212> DNA
 <213> Homo sapiens

<400> 3045
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 60
 gaagaaattc ttgttataa gctgctatcc atgtccaggg ccaaactga atcctattgc
 120
 tcttgggagc cgctggcttg cttatgcaga aaacaagttg attcgatgtc atcagtcccg
 180
 tggaggagcc tgtggagaca acattcagtc ttatactgcc acagtcatta gtgctgctaa
 240
 aacattgaaa agtggcctga caatggtagg gaaagtgggtg actcagctga caggcacact
 300
 gccttcaggt gtgacagaag atgatgttg catccacagt aattcacggc ggagtccttt
 360
 ggtcccaggc atcatcacag ttattgacac cgaaaccgtg gagagggcca ggtgtttgtg
 420
 agtgaggatc ttgacagtga tggcattgtg gccacttcc ctgcccata gaagccagt
 480
 tgctgcatgg cttttaatac aagtggaatg cttctagtca caacagacac ccttggccat
 540
 gactttcatg tcttccaaat tctgactcat ccttggtcct catctacgga gagacgacaa
 600
 cgcgt
 605

<210> 3046
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 3046
 His Arg Asn Arg Gly Glu Gly Gln Val Phe Val Ser Glu Asp Leu Asp
 1 5 10 15
 Ser Asp Gly Ile Val Ala His Phe Pro Ala His Glu Lys Pro Val Cys
 20 25 30
 Cys Met Ala Phe Asn Thr Ser Gly Met Leu Leu Val Thr Thr Asp Thr
 35 40 45
 Leu Gly His Asp Phe His Val Phe Gln Ile Leu Thr His Pro Trp Ser
 50 55 60
 Ser Ser Thr Glu Arg Arg Gln Arg
 65 70

<210> 3047
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 3047

attttggagg agaggaagaa tgaaatgacc caagtcatta cccgaaccca agaggagaaa
 60
 ctggaacatg tccgtgctct gatcaaaaag tattctgatac atttggagaa cgtctcaaag
 120
 ttgggtgagt caggaattca gtttatggat gagccagaaa tggcagtgtt tctgcagaat
 180
 gccaaaaccc tgctaaaaaa aatctcggaa gcatcaaagg catttcagat ggagaaaata
 240
 gaacatggct atgagaacat gaaccacttc acagtcaacc tcaatagaga agaaaagata
 300
 atacgtgaaa ttgactttta cagagaagat gaagatgaag aagaagaaga aggcggagaa
 360
 ggagaaaaag aagagaagga gaagtgggag a
 391

<210> 3048

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3048

Met	Thr	Gln	Val	Ile	Thr	Arg	Thr	Gln	Glu	Glu	Lys	Leu	Glu	His	Val
1			5					10					15		
Arg	Ala	Leu	Ile	Lys	Lys	Tyr	Ser	Asp	His	Leu	Glu	Asn	Val	Ser	Lys
		20						25					30		
Leu	Val	Glu	Ser	Gly	Ile	Gln	Phe	Met	Asp	Glu	Pro	Glu	Met	Ala	Val
	35					40					45				
Phe	Leu	Gln	Asn	Ala	Lys	Thr	Leu	Leu	Lys	Lys	Ile	Ser	Glu	Ala	Ser
	50					55					60				
Lys	Ala	Phe	Gln	Met	Glu	Lys	Ile	Glu	His	Gly	Tyr	Glu	Asn	Met	Asn
65				70						75					80
His	Phe	Thr	Val	Asn	Leu	Asn	Arg	Glu	Glu	Lys	Ile	Ile	Arg	Glu	Ile
			85					90						95	
Asp	Phe	Tyr	Arg	Glu	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Gly	Gly	Glu
		100						105						110	
Gly	Glu	Lys	Glu	Glu	Lys	Glu	Lys	Trp	Glu						
		115						120							

<210> 3049

<211> 599

<212> DNA

<213> Homo sapiens

<400> 3049

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 120
 tttccttctc tgaacgaaag ctcgcccgag gtgctcgaat acaccattaa ggaagaaaag
 180
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 240
 ttctactgtg tcagtagaga cttactgccc ttcacactgc ggctacccca ggccatcctt
 300

gaggccagca gcttcacgga ccttgagacc atcgccaacc tgggtctggg tttctgggac
 360
 tcctcgctga atcctccaca agaaagaggg aagccagcag agccccaag agaccgggac
 420
 cccggattcc ccctagtctc cagcctcagg cccacagccc atgacgcaaa ctgtgcctgt
 480
 gaaatcgagc tgtcggtagg aaatgaccgc ctgtggtttg tgaatcctat tttcatcgag
 540
 gactgcagca gcgcctgcc caccgaccag ccacctcttg gaaattgccc ttcaacggt
 599

<210> 3050

<211> 177

<212> PRT

<213> Homo sapiens

<400> 3050

Met	Phe	Leu	Val	Arg	Arg	Asp	Ser	Ser	Ser	Lys	Gln	Leu	Val	Leu	Cys
1				5					10					15	
Val	His	Phe	Pro	Ser	Leu	Asn	Glu	Ser	Ser	Ala	Glu	Val	Leu	Glu	Tyr
			20					25					30		
Thr	Ile	Lys	Glu	Glu	Lys	Ser	Ile	Leu	Tyr	Leu	Glu	Gly	Ser	Ala	Leu
		35				40						45			
Val	Phe	Glu	Asp	Ile	Phe	Arg	Leu	Ile	Ala	Phe	Tyr	Cys	Val	Ser	Arg
		50				55				60					
Asp	Leu	Leu	Pro	Phe	Thr	Leu	Arg	Leu	Pro	Gln	Ala	Ile	Leu	Glu	Ala
65					70					75				80	
Ser	Ser	Phe	Thr	Asp	Leu	Glu	Thr	Ile	Ala	Asn	Leu	Gly	Leu	Gly	Phe
				85					90				95		
Trp	Asp	Ser	Ser	Leu	Asn	Pro	Pro	Gln	Glu	Arg	Gly	Lys	Pro	Ala	Glu
			100					105					110		
Pro	Pro	Arg	Asp	Arg	Ala	Pro	Gly	Phe	Pro	Leu	Val	Ser	Ser	Leu	Arg
		115					120					125			
Pro	Thr	Ala	His	Asp	Ala	Asn	Cys	Ala	Cys	Glu	Ile	Glu	Leu	Ser	Val
		130				135						140			
Gly	Asn	Asp	Arg	Leu	Trp	Phe	Val	Asn	Pro	Ile	Phe	Ile	Glu	Asp	Cys
145					150					155				160	
Ser	Ser	Ala	Leu	Pro	Thr	Asp	Gln	Pro	Pro	Leu	Gly	Asn	Cys	Pro	Ser
				165					170					175	

Arg

<210> 3051

<211> 820

<212> DNA

<213> Homo sapiens

<400> 3051

nattcggcac gacggcatca agtctgggaa gaaacccacc cagagggtt cgctgatcat
 60
 agacgatgga aacattgccg gtgaagacag ctccctctca gatgcccttg ttcttgagga
 120
 tgaagactct caggttacca gcacaatat cccctacat tctctcaca agggactccc
 180

tcctcgcca cgcgcgaca acaggcctcc tcctccccag tccctggagg gactccgaca
 240
 gatgcactat caccgncaac gactatgaca agtcacccat caagcccaaa atgtggagtg
 300
 agtcctcttt agatgaaccc tatgagaagg tcaagaagcg ctctctcac agccattcca
 360
 gcagccacaa gcgcttcccc agcacaggaa gctgtgcgga agccggcgga ggaagcaact
 420
 ccttgacaaa cagccccatc cgcggcctcc cgcactggaa ctcccagtcc agcatgccgt
 480
 ccacgccaga cctgcgggtc cggagtcccc actacgtcca ttccacgagg tcggtggaca
 540
 tcagccccac ccgactgcac agcctcgcac tgcactttag gcaccggagc tccagcctgg
 600
 agtcccaggg caagctcctg ggctcggaaa acgacaccgg gagccccgac ttctacaccc
 660
 cgcggactcg tagcagcaac ggctcagacc ccatggacga ctgctcgtcg tgcaccagcc
 720
 actcgagctc ggagcactac taccggcgcg agatgaacgc caactactcc acgctggccg
 780
 aggactcgcc gtccaaggcg cggctgcatg gatattcgac
 820

<210> 3052

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3052

Arg	Leu	Ser	Gly	Tyr	Gln	His	Asn	Ile	Pro	Pro	Thr	Phe	Ser	Ser	Gln
1				5					10					15	
Gly	Thr	Pro	Ser	Ser	Ala	Thr	Val	Ala	Gln	Gln	Ala	Ser	Ser	Ser	Pro
			20					25					30		
Val	Pro	Gly	Gly	Thr	Pro	Thr	Asp	Ala	Leu	Ser	Pro	Xaa	Thr	Thr	Met
		35					40					45			
Thr	Ser	His	Pro	Ser	Ser	Pro	Lys	Cys	Gly	Val	Ser	Pro	Leu		
		50				55					60				

<210> 3053

<211> 2625

<212> DNA

<213> Homo sapiens

<400> 3053

agtggctgnt cagaacatac atctntcatg ctttcattgt ctaccaaga gaagccagaa
 60
 gagcctccga catctaataga atgcttagaa gatataaccg taaaagatgg actttctctc
 120
 cagtttaaaa gatttagaga aactgtacca acttgggata caataagaga tgaagaagat
 180
 gttcttgatg agctcttgca gtatttgggt gttactagtc ctgaatgctt acagagaact
 240
 ggaatctcac ttaatatcc tgctccacaa cctgtgtgca tttctgaaaa acaagaaat
 300

gatgttatta atgctatcct taagcaacat acagaagaaa aagaatttgt tgagaagcac
360
tttaatgact taaacatgaa agctgtggaa caagatgaac caatacctca aaaacctcag
420
tcagcatttt attattgcag attgcttctt agtatattgg gaatgaattc ctgggacaaa
480
cggaggagct ttcattctct gaagaaaaat gaaaagctac ttagagaact taggaacttg
540
gattcaaggc agtgccgaga gacacacaag attgcagtat tttatgttgc tgaaggacaa
600
gaagacaaac actccattct caccaatata ggaggaagtc aagcatatga agattttgta
660
gctggtcttg gttgggaggt aaatcttaca aaccattgtg gttttatggg aggactacaa
720
aaaaacaaaa gcactggatt gaccactcca tattttgcta cctctacagt agaggtaata
780
tttcacgtgt caacaagaat gccttctgat tctgatgatt ctttgaccaa aaaattgaga
840
catttgggaa atgatgaagt gcacattgtt tggtcagagc atactagaga ctacaggaga
900
ggaattattc ccacagaatt tggatgatgc cttattgtaa tatatccaat gaaaaatcac
960
atgttcagta ttcagataat gaaaaaacca gaggttccct tctttggtcc cctttttgat
1020
ggtgctattg tgaatggaaa ggttctaccc attatggtta gagcaacagc tataaatgca
1080
agccgtgctc tgaaatctct gattccattg tatcaaaact tctatgagga gagagcacga
1140
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1260
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1320
gcaggtagat ggggctgacc tggcctctcc aatgtctcct cgaactagca aaagccgat
1380
gtccatgaag ctgcgtcggt cctctggctc agccaataaa tcctaaggag acaagcagcc
1440
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1500
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1560
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1620
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1680
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1740
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1800
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1860
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1920

aaacactcaa aataaatggt ctttagcatc tcaaattcca actgaaatca ttttagtatt
 1980
 aactcttctt cccaaagcaa tgtctcattt cttggctgtg caggtgatgc catgttatat
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 2160
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 2220
 tggggaagaa aagaaggaaa attttctgat ataaatatgt tgttcaaatt atgagtatta
 2280
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 2340
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 2460
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 2520
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 2580
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 2625

<210> 3054

<211> 417

<212> PRT

<213> Homo sapiens

<400> 3054

Ser	Gly	Xaa	Ser	Glu	His	Thr	Ser	Xaa	Met	Leu	Ser	Leu	Ser	His	Gln
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Glu	Lys	Pro	Glu	Glu	Pro	Pro	Thr	Ser	Asn	Glu	Cys	Leu	Glu	Asp	Ile
			20					25						30	
Thr	Val	Lys	Asp	Gly	Leu	Ser	Leu	Gln	Phe	Lys	Arg	Phe	Arg	Glu	Thr
			35				40						45		
Val	Pro	Thr	Trp	Asp	Thr	Ile	Arg	Asp	Glu	Glu	Asp	Val	Leu	Asp	Glu
			50				55				60				
Leu	Leu	Gln	Tyr	Leu	Gly	Val	Thr	Ser	Pro	Glu	Cys	Leu	Gln	Arg	Thr
65					70					75				80	
Gly	Ile	Ser	Leu	Asn	Ile	Pro	Ala	Pro	Gln	Pro	Val	Cys	Ile	Ser	Glu
				85				90						95	
Lys	Gln	Glu	Asn	Asp	Val	Ile	Asn	Ala	Ile	Leu	Lys	Gln	His	Thr	Glu
			100					105					110		
Glu	Lys	Glu	Phe	Val	Glu	Lys	His	Phe	Asn	Asp	Leu	Asn	Met	Lys	Ala
			115				120					125			
Val	Glu	Gln	Asp	Glu	Pro	Ile	Pro	Gln	Lys	Pro	Gln	Ser	Ala	Phe	Tyr
			130				135					140			
Tyr	Cys	Arg	Leu	Leu	Leu	Ser	Ile	Leu	Gly	Met	Asn	Ser	Trp	Asp	Lys
145					150					155				160	
Arg	Arg	Ser	Phe	His	Leu	Leu	Lys	Lys	Asn	Glu	Lys	Leu	Leu	Arg	Glu
				165					170					175	
Leu	Arg	Asn	Leu	Asp	Ser	Arg	Gln	Cys	Arg	Glu	Thr	His	Lys	Ile	Ala

			180					185					190				
Val	Phe	Tyr	Val	Ala	Glu	Gly	Gln	Glu	Asp	Lys	His	Ser	Ile	Leu	Thr		
195			200					205									
Asn	Thr	Gly	Gly	Ser	Gln	Ala	Tyr	Glu	Asp	Phe	Val	Ala	Gly	Leu	Gly		
210			215					220									
Trp	Glu	Val	Asn	Leu	Thr	Asn	His	Cys	Gly	Phe	Met	Gly	Gly	Leu	Gln		
225			230					235					240				
Lys	Asn	Lys	Ser	Thr	Gly	Leu	Thr	Thr	Pro	Tyr	Phe	Ala	Thr	Ser	Thr		
			245					250					255				
Val	Glu	Val	Ile	Phe	His	Val	Ser	Thr	Arg	Met	Pro	Ser	Asp	Ser	Asp		
			260					265					270				
Asp	Ser	Leu	Thr	Lys	Lys	Leu	Arg	His	Leu	Gly	Asn	Asp	Glu	Val	His		
275			280					285									
Ile	Val	Trp	Ser	Glu	His	Thr	Arg	Asp	Tyr	Arg	Arg	Gly	Ile	Ile	Pro		
290			295					300									
Thr	Glu	Phe	Gly	Asp	Val	Leu	Ile	Val	Ile	Tyr	Pro	Met	Lys	Asn	His		
305			310					315					320				
Met	Phe	Ser	Ile	Gln	Ile	Met	Lys	Lys	Pro	Glu	Val	Pro	Phe	Phe	Gly		
			325					330					335				
Pro	Leu	Phe	Asp	Gly	Ala	Ile	Val	Asn	Gly	Lys	Val	Leu	Pro	Ile	Met		
			340					345					350				
Val	Arg	Ala	Thr	Ala	Ile	Asn	Ala	Ser	Arg	Ala	Leu	Lys	Ser	Leu	Ile		
355			360					365									
Pro	Leu	Tyr	Gln	Asn	Phe	Tyr	Glu	Glu	Arg	Ala	Arg	Tyr	Leu	Gln	Thr		
370			375					380									
Ile	Val	Gln	His	His	Leu	Glu	Pro	Thr	Thr	Phe	Glu	Asp	Phe	Ala	Ala		
385			390					395					400				
Gln	Val	Phe	Ser	Pro	Ala	Pro	Tyr	His	His	Leu	Pro	Ser	Asp	Ala	Asp		
			405					410					415				
His																	

<210> 3055

<211> 905

<212> DNA

<213> Homo sapiens

<400> 3055

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ctatcgaacc ctctacatcg ggacaggagc tgacatggat gtgtgcctta caaactatgg
120

tactgtgaac tacgtgtccg ggaaacatgc ctgcatattc tacgatgaga ataccaaaca
180

ttatgagctg ttaaactaca gtgagcatgg gacaacggtg gacaatgtgc tgtattcatg
240

tgactttctcg gagaagaccc cgccaacccc cccaagcagt attgttgcca aagtgcagag
300

tgatcatcagg cgccgccggc accagaaaca ggacgaagag ccaagtgagg aggcagccat
360

gatgagttcc cagggcccagg ggccgcagcg gagaccctgc aattgcaaag ccagcagctc
420

gagcttgatt gggggcagtg gggccggctg ggagggcaca gccttactgc accatggcag
480

ctacatcaag ctgggctgcc tgcagtttgt cttcagcatc actgagtttg cgaccaaaca
 540
 gcccaaaggc gatgccagcc tgctgcagga tggggctcttg gccgagaagc tctctctcaa
 600
 gccccaccag ggccctgtgc tgcgctccaa ctctgttctt taggactggc ggctacccccg
 660
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<210> 3056

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3056

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			20					25					30		
Cys	Ile	Phe	Tyr	Asp	Glu	Asn	Thr	Lys	His	Tyr	Glu	Leu	Leu	Asn	Tyr
	35					40					45				
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Ser	Glu	Lys	Thr	Pro	Pro	Thr	Pro	Pro	Ser	Ser	Ile	Val	Ala	Lys	Val
65				70					75					80	
Gln	Ser	Val	Ile	Arg	Arg	Arg	Arg	His	Gln	Lys	Gln	Asp	Glu	Glu	Pro
			85					90					95		
Ser	Glu	Glu	Ala	Ala	Met	Met	Ser	Ser	Gln	Ala	Gln	Gly	Pro	Gln	Arg
			100				105					110			
Arg	Pro	Cys	Asn	Cys	Lys	Ala	Ser	Ser	Ser	Ser	Leu	Ile	Gly	Gly	Ser
		115				120						125			
Gly	Ala	Gly	Trp	Glu	Gly	Thr	Ala	Leu	Leu	His	His	Gly	Ser	Tyr	Ile
	130				135						140				
Lys	Leu	Gly	Cys	Leu	Gln	Phe	Val	Phe	Ser	Ile	Thr	Glu	Phe	Ala	Thr
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Lys	Gln	Pro	Lys	Gly	Asp	Ala	Ser	Leu	Leu	Gln	Asp	Gly	Val	Leu	Ala
			165				170						175		
Glu	Lys	Leu	Ser	Leu	Lys	Pro	His	Gln	Gly	Pro	Val	Leu	Arg	Ser	Asn
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<210> 3057

<211> 2169

<212> DNA

<213> Homo sapiens

<400> 3057

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<210> 3058

<211> 298

<212> PRT

<213> Homo sapiens

<400> 3058

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		20						25				30			
Ala	Arg	Arg	Ala	Arg	Lys	Val	Phe	Thr	Val	Ile	Glu	Pro	Val	Asp	Ile
		35				40					45				
Asn	Thr	Pro	Ala	Leu	Leu	Ala	Pro	Gln	Ala	Gly	Ala	Arg	Glu	Lys	Val
	50					55				60					
Ala	Arg	Ser	Trp	Tyr	Cys	Asn	Arg	Gly	Leu	Val	Ser	Leu	Ser	Ala	Lys
65				70				75						80	
Ile	Asp	Arg	Lys	Gly	Tyr	Thr	Pro	Gly	Glu	Val	Ile	Pro	Val	Phe	Ala
			85					90						95	
Glu	Ile	Asp	Asn	Gly	Ser	Thr	Arg	Pro	Val	Leu	Pro	Arg	Ala	Ala	Val
		100					105						110		
Val	Gln	Thr	Gln	Thr	Phe	Met	Ala	Arg	Gly	Ala	Arg	Lys	Gln	Lys	Arg
	115					120						125			
Ala	Val	Val	Ala	Ser	Leu	Ala	Gly	Glu	Pro	Val	Gly	Pro	Gly	Gln	Arg
	130					135					140				
Ala	Leu	Trp	Gln	Gly	Arg	Ala	Leu	Arg	Ile	Pro	Pro	Val	Gly	Pro	Ser
145				150				155						160	
Ile	Leu	His	Cys	Arg	Val	Leu	His	Val	Asp	Tyr	Ala	Leu	Lys	Val	Cys
			165					170						175	
Val	Asp	Ile	Pro	Gly	Thr	Ser	Lys	Leu	Leu	Glu	Leu	Pro	Leu	Val	
		180					185					190			
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210	215	220
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225	230	235
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245	250	255
Asp Met Ser Leu Glu Gly Pro Phe Phe Ala Tyr Ile Gln Glu Phe Arg		
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Tyr Arg Pro Pro Pro Leu Tyr Ser Glu Glu Asp Pro Asn Pro Leu Leu		
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<210> 3059

<211> 1411

<212> DNA

<213> Homo sapiens

<400> 3059

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180
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240
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420
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600
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1020

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<210> 3060

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3060

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Lys	Lys	Lys	His	Arg	Arg	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Asp	Ser
			20					25				30		
Arg	Thr	Tyr	Ser	Arg	Lys	Lys	Gly	Gly	Arg	Lys	Ser	Arg	Ser	Lys
		35					40					45		
Arg	Ser	Trp	Ser	Arg	Asp	Leu	Gln	Pro	Arg	Ser	His	Ser	Tyr	Asp
		50				55					60			
Arg	Arg	Arg	His	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Tyr	Gly	Ser	Arg
65					70					75				80
Lys	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Gly	Lys	Ser	Tyr	Arg
				85					90					95
Gln	Arg	Ser	Arg	Ser	Lys	Ser	Arg	Thr	Arg	Arg	Ser	Arg	Ser	Arg
			100					105					110	
Arg	Leu	Arg	Ser	His	Ser	Arg	Ser	Ser	Glu	Arg	Ser	Ser	His	Arg
			115				120					125		
Thr	Arg	Ser	Arg	Ser	Arg	Asp	Arg	Glu	Arg	Arg	Lys	Gly	Arg	Asp
			130			135					140			
Glu	Lys	Arg	Glu	Lys	Glu	Lys	Asp	Lys	Gly	Lys	Asp	Lys	Glu	Leu
145					150					155				160
Asn	Ile	Lys	Arg	Gly	Glu	Ser	Gly	Asn	Ile	Lys	Ala	Gly	Leu	Glu
				165				170						175
Leu	Pro	Pro	Ala	Glu	Gln	Ala	Lys	Ala	Arg	Leu	Gln	Leu	Val	Leu
			180					185					190	
Ala	Ala	Ala	Lys	Ala	Asp	Glu	Ala	Leu	Lys	Ala	Lys	Glu	Arg	Asn
			195				200					205		
Glu	Glu	Ala	Lys	Arg	Arg	Lys	Glu	Glu	Asp	Gln	Ala	Thr	Leu	Val
			210			215					220			
Gln	Val	Lys	Arg	Val	Lys	Glu	Ile	Glu	Ala	Ile	Glu	Ser	Asp	Ser
225					230					235				240
Val	Gln	Gln	Thr	Phe	Arg	Ser	Ser	Lys	Glu	Val	Lys	Lys	Ser	Val
				245					250					255
Pro	Ser	Glu	Val	Lys	Gln	Ala	Thr	Ser	Thr	Ser	Gly	Pro	Ala	Ser

	260		265		270										
Val	Ala	Asp	Pro	Pro	Ser	Thr	Glu	Lys	Glu	Ile	Asp	Pro	Thr	Ser	Ile
	275						280				285				
Pro	Thr	Ala	Ile	Lys	Tyr	Gln	Asp	Asp	Asn	Ser	Leu	Ala	His	Pro	Asn
	290					295					300				
Leu	Phe	Ile	Glu	Lys	Ala	Asp	Ala	Glu	Glu	Lys	Trp	Phe	Lys	Arg	Leu
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<210> 3061

<211> 1554

<212> DNA

<213> Homo sapiens

<400> 3061

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1140

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<210> 3062

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3062

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Phe	Lys	Met	Leu	Gln	Glu	Asn	Arg	Glu	Gly	Arg	Ala	Ala	Pro	Arg	Gln
			20					25					30		
Ser	Ser	Ser	Phe	Arg	Leu	Leu	Gln	Glu	Ala	Leu	Glu	Ala	Glu	Glu	Arg
		35					40					45			
Gly	Gly	Thr	Pro	Ala	Phe	Leu	Pro	Ser	Ser	Leu	Ser	Pro	Gln	Ser	Ser
		50				55					60				
Leu	Pro	Ala	Ser	Arg	Ala	Leu	Ala	Thr	Pro	Pro	Lys	Leu	His	Thr	Cys
65					70					75				80	
Glu	Lys	Cys	Ser	Thr	Ser	Ile	Ala	Asn	Gln	Ala	Val	Arg	Ile	Gln	Glu
			85						90					95	
Gly	Arg	Tyr	Arg	His	Pro	Gly	Cys	Tyr	Thr	Cys	Ala	Asp	Cys	Gly	Leu
			100					105					110		
Asn	Leu	Lys	Met	Arg	Gly	His	Phe	Trp	Val	Gly	Asp	Glu	Leu	Tyr	Cys
		115					120					125			
Glu	Lys	His	Ala	Arg	Gln	Arg	Tyr	Ser	Ala	Pro	Ala	Thr	Leu	Ser	Ser
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<210> 3063

<211> 386

<212> DNA

<213> Homo sapiens

<400> 3063

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180

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<210> 3064

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3064

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			20					25					30		
Tyr	Gln	Cys	Ser	Arg	Pro	Ala	Pro	Leu	His	Ser	Arg	Asp	Leu	His	Ser
		35					40					45			
Met	Ile	Val	Ala	Ala	Phe	Gln	Cys	Leu	Cys	Val	Trp	Leu	Thr	Glu	His
		50				55					60				
Pro	Asp	Met	Leu	Asp	Glu	Lys	Asp	Tyr	Leu	Lys	Glu	Val	Leu	Glu	Ile
65					70					75				80	
Val	Glu	Leu	Gly	Ile	Ser	Gly	Ser	Lys	Ser	Lys	Asn	Asn	Glu	Gln	Glu
			85					90					95		
Val	Lys	Tyr	Lys	Gly	Asp	Lys	Glu	Pro	Asn	Pro	Ala	Ser	Met	Arg	Val
			100					105					110		
Lys	Asp	Ala	Ala	Glu	Ala	Thr	Leu	Thr	Trp	Tyr	Gly	Ser	Asp	Arg	Thr
			115				120						125		

<210> 3065

<211> 2104

<212> DNA

<213> Homo sapiens

<400> 3065

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<212> PRT
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Ser Gln Gly Pro Xaa Thr Ala Pro Gly Ser Pro Cys Arg Ser Cys Gly
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<211> 204

<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 3069

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<210> 3070

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3070

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Leu Gly Ser Ser Val Leu His Trp Gly Tyr Leu Pro Ser Lys Asp Asp
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<212> DNA

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<211> 349

<212> PRT

<213> Homo sapiens

<400> 3072

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Lys	Glu	Ser	Arg	Gly	Leu	Arg	Gln	Gln	Gly	Thr	Ser	Val	Ala	Gln	Ser
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Gly	Ala	Gln	Ala	Pro	Gly	Arg	Ala	His	Arg	Cys	Ala	His	Cys	Arg	Arg
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Asp	Leu	Gly	Phe	Ala	Cys	His	Leu	Cys	Gly	Gln	Ser	Phe	Arg	Gly	Trp

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Val Ala His Lys Arg Val His Val Ala Glu Ala Leu Glu Glu Ala Ala		
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225	230	235
Cys Gly Lys Arg Phe Arg His Lys Pro Asn Leu Ile Ala His Arg Arg		
245	250	255
Val His Thr Gly Glu Arg Pro His Gln Cys Pro Glu Cys Gly Lys Arg		
260	265	270
Phe Thr Asn Lys Pro Tyr Leu Thr Ser His Arg Arg Ile His Thr Gly		
275	280	285
Glu Lys Pro Tyr Pro Cys Lys Glu Cys Gly Arg Arg Phe Arg His Lys		
290	295	300
Pro Asn Leu Leu Ser His Ser Lys Ile His Xaa Ser Asp Pro Arg Gly		
305	310	315
Arg Pro Arg Pro Pro Pro Ala Arg Gly Ala Pro Ser Cys Gln Pro Ala		
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<210> 3073

<211> 791

<212> DNA

<213> Homo sapiens

<400> 3073

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<212> PRT

<213> Homo sapiens

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Ser	Cys	Glu	Phe	Leu	Leu	Ala	Gly	Ala	Gly	Gly	Ala	Gly	Ala	Gly	Ala
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Ala	Pro	Gly	Pro	His	Leu	Pro	Pro	Arg	Gly	Ser	Val	Pro	Gly	Asp	Pro
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Ile	Trp	Ser	Val	Glu	Ser	Asp	Asp	Pro	Asn	Leu	Ala	Ala	Val	Leu	Glu
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<212> DNA

<213> Homo sapiens

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Val Gly Pro Gln Lys Lys Lys Lys Lys Lys Lys Val Leu Gly Gly
35          40          45
Gly Arg Phe Gly Gln Val His Arg Cys Thr Glu Lys Ser Thr Gly Leu
50          55          60
Ala Leu Ala Ala Lys Ile Ile Lys Val Lys Asn Val Lys Asp Arg Glu
65          70          75          80
Asp Val Lys Asn Glu Val Asn Ile Met Asn Gln Leu Ser His Val Asn
85          90          95
Leu Ile Gln Leu Tyr Asp Ala Phe Glu Ser Lys Ser Ser Phe Thr Leu
100         105         110
Ile Met Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Arg Ile Thr Asp
115         120         125
Glu Lys Tyr His Leu Thr Glu Leu Asp Val Val Leu Phe Thr Arg Gln
130         135         140
Ile Cys Glu Gly Val His Tyr Leu His Gln His Tyr Ile Leu His Leu
145         150         155         160
Asp Leu Lys Pro Glu Asn Ile Leu Cys Val Ser Gln Thr Gly His Gln

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				165						170					175
Ile	Lys	Ile	Ile	Asp	Phe	Gly	Leu	Ala	Arg	Arg	Tyr	Lys	Pro	Arg	Glu
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Lys	Leu	Lys	Val	Asn	Phe	Gly	Thr	Pro							
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<210> 3077

<211> 1377

<212> DNA

<213> Homo sapiens

<400> 3077

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<210> 3078

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3078

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Glu	Ala	Val	Gln	Ala	Leu	Arg	Glu	Arg	Leu	Gly	Val	Gly	Gly	Arg	Thr
			20					25					30		
Val	Gly	Ala	Leu	Pro	Arg	Gly	Pro	Arg	Gln	Asn	Ser	Arg	Leu	Gly	Leu
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Pro	Leu	Leu	Leu	Met	Pro	Glu	Glu	Ala	Arg	Leu	Leu	Ala	Glu	Ile	Gly
	50					55				60					
Ala	Val	Thr	Leu	Val	Ser	Ala	Pro	Arg	Pro	Asp	Ser	Arg	His	His	Ser
65					70					75				80	
Leu	Ala	Leu	Thr	Ser	Phe	Lys	Arg	Gln	Gln	Glu	Glu	Ser	Phe	Gln	Glu
				85					90					95	
Gln	Ser	Ala	Leu	Ala	Ala	Glu	Ala	Arg	Glu	Thr	Arg	Arg	Gln	Glu	Leu
			100					105					110		
Leu	Glu	Lys	Ile	Thr	Glu	Gly	Gln	Ala	Ala	Lys	Lys	Gln	Lys	Leu	Glu
	115					120						125			
Gln	Ala	Ser	Gly	Ala	Ser	Ser	Ser	Gln	Glu	Ala	Gly	Ser	Ser	Gln	Ala
	130					135					140				
Ala	Lys	Glu	Asp	Glu	Thr	Ser	Asp	Gly	Gln	Ala	Ser	Gly	Glu	Gln	Glu
145					150					155				160	
Glu	Ala	Gly	Pro	Ser	Ser	Ser	Gln	Ala	Gly	Pro	Ser	Asn	Gly	Val	Ala
			165						170					175	
Pro	Leu	Pro	Arg	Ser	Ala	Leu	Leu	Val	Gln	Leu	Ala	Thr	Ala	Arg	Pro
			180						185					190	
Arg	Pro	Val	Lys	Ala	Arg	Pro	Leu	Asp	Trp	Arg	Val	Gln	Ser	Lys	Asp
	195					200						205			
Trp	Pro	His	Ala	Gly	Arg	Pro	Ala	His	Glu	Leu	Arg	Tyr	Ser	Ile	Tyr
	210					215					220				
Arg	Asp	Leu	Trp	Glu	Arg	Gly	Phe	Phe	Leu	Ser	Ala	Ala	Gly	Lys	Phe
225				230						235				240	
Gly	Gly	Asp	Phe	Leu	Val	Tyr	Pro	Gly	Asp	Pro	Leu	Arg	Phe	His	Ala
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His	Tyr	Ile	Ala	Gln	Cys	Trp	Ala	Pro	Glu	Asp	Thr	Ile	Pro	Leu	Gln
			260					265					270		
Asp	Leu	Val	Ala	Ala	Gly	Arg	Leu	Gly	Thr	Ser	Val	Arg	Lys	Thr	Leu
	275						280					285			
Leu	Leu	Cys	Ser	Pro	Gln	Pro	Asp	Gly	Lys	Val	Val	Tyr	Thr	Ser	Leu
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<210> 3079

<211> 1785

<212> DNA

<213> Homo sapiens

<400> 3079

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<210> 3080

<211> 500.

<212> PRT

<213> Homo sapiens

<400> 3080

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Cys	Ser	Pro	Thr	Pro	Pro	Pro	Val	Pro	Arg	Arg	Gly	Thr	His	Thr	Thr	20	25	30	
Val	Ser	Gln	Val	Gln	Pro	Pro	Pro	Ser	Lys	Ala	Ser	Ala	Pro	Glu	Pro	35	40	45	
Pro	Ala	Glu	Glu	Glu	Val	Ala	Thr	Gly	Thr	Thr	Ser	Ala	Ser	Asp	Asp	50	55	60	
Leu	Glu	Ala	Leu	Gly	Thr	Leu	Ser	Leu	Gly	Thr	Thr	Glu	Glu	Lys	Ala	65	70	75	80
Ala	Ala	Glu	Ala	Ala	Val	Pro	Arg	Thr	Ile	Gly	Ala	Glu	Leu	Met	Glu	85	90	95	
Leu	Val	Arg	Arg	Asn	Thr	Gly	Leu	Ser	His	Glu	Leu	Cys	Arg	Val	Ala	100	105	110	
Ile	Gly	Ile	Ile	Val	Gly	His	Ile	Gln	Ala	Ser	Val	Pro	Ala	Ser	Ser	115	120	125	
Pro	Val	Met	Glu	Gln	Val	Leu	Leu	Ser	Leu	Val	Glu	Gly	Lys	Asp	Leu	130	135	140	
Ser	Met	Ala	Leu	Pro	Ser	Gly	Gln	Val	Cys	His	Asp	Gln	Gln	Arg	Leu	145	150	155	160
Glu	Val	Ile	Phe	Ala	Asp	Leu	Ala	Arg	Arg	Lys	Asp	Asp	Ala	Gln	Gln	165	170	175	
Arg	Ser	Trp	Ala	Leu	Tyr	Glu	Asp	Glu	Gly	Val	Ile	Arg	Cys	Tyr	Leu	180	185	190	
Glu	Glu	Leu	Leu	His	Ile	Leu	Thr	Asp	Ala	Asp	Pro	Glu	Val	Cys	Lys	195	200	205	
Lys	Met	Cys	Lys	Arg	Asn	Glu	Phe	Glu	Ser	Val	Leu	Ala	Leu	Val	Ala	210	215	220	
Tyr	Tyr	Gln	Met	Glu	His	Arg	Ala	Ser	Leu	Arg	Leu	Leu	Leu	Leu	Lys	225	230	235	240
Cys	Phe	Gly	Ala	Met	Cys	Ser	Leu	Asp	Ala	Ala	Ile	Ile	Ser	Thr	Leu	245	250	255	
Val	Ser	Ser	Val	Leu	Pro	Val	Glu	Leu	Ala	Arg	Asp	Met	Gln	Thr	Asp	260	265	270	
Thr	Gln	Asp	His	Gln	Lys	Leu	Cys	Tyr	Ser	Ala	Leu	Ile	Leu	Ala	Met	275	280	285	
Val	Phe	Ser	Met	Gly	Glu	Ala	Val	Pro	Tyr	Ala	His	Tyr	Glu	His	Leu				

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      290              295              300
Gly Thr Pro Phe Ala Gln Phe Leu Leu Asn Ile Val Glu Asp Gly Leu
305              310              315              320
Pro Leu Asp Thr Thr Glu Gln Leu Pro Asp Leu Cys Val Asn Leu Leu
      325              330              335
Leu Ala Leu Asn Leu His Leu Pro Ala Ala Asp Gln Asn Val Ile Met
      340              345              350
Ala Ala Leu Ser Lys His Ala Asn Val Lys Ile Phe Ser Glu Lys Leu
      355              360              365
Leu Leu Leu Leu Asn Arg Gly Asp Asp Pro Val Arg Ile Phe Lys His
      370              375              380
Glu Pro Gln Pro Pro His Ser Val Leu Lys Phe Leu Gln Asp Val Phe
385              390              395              400
Gly Ser Pro Ala Thr Ala Ala Ile Phe Tyr His Thr Asp Met Met Ala
      405              410              415
Leu Ile Asp Ile Thr Val Arg His Ile Ala Asp Leu Ser Pro Gly Asp
      420              425              430
Lys Gly Pro Phe Gly Ala Gly Gln Arg Pro Trp Pro Gly Val Pro Arg
      435              440              445
Leu Leu Glu Pro Gly Ser Thr Pro Ser Arg Glu Pro His Pro Val Glu
      450              455              460
Arg Ser Gly Val Pro Ala Leu Thr Ser Ser Trp Ala Ser Gly Cys Pro
465              470              475              480
Arg Pro Leu His Pro Ala Leu Gln Leu Val Ile Asp Ser Ala Phe Gly
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Gly Arg Ser Val
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<210> 3081

<211> 1902

<212> DNA

<213> Homo sapiens

<400> 3081

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<210> 3082

<211> 414

<212> PRT

<213> Homo sapiens

<400> 3082

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                35                40                45
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                50                55                60
Cys Asn Tyr Leu Val Gln Glu Asp Phe Val Pro Phe Leu Gln Asp Val
65                70                75                80
Val Asn Thr His Pro Gly Leu Ser Phe Leu Lys Glu Ala Ser Glu Phe
                85                90                95
His Ser Arg Tyr Ile Thr Thr Val Ile Gln Arg Ile Phe Tyr Ala Val
                100                105                110
Asn Arg Ser Trp Ser Gly Arg Ile Thr Cys Ala Glu Leu Arg Arg Ser
                115                120                125
Ser Phe Leu Gln Asn Val Ala Leu Leu Glu Glu Glu Ala Asp Ile Asn
                130                135                140
Gln Leu Thr Glu Phe Phe Ser Tyr Glu His Phe Tyr Val Ile Tyr Cys
145                150                155                160
Lys Phe Trp Glu Leu Asp Thr Asp His Asp Leu Leu Ile Asp Ala Asp
                165                170                175
Asp Leu Ala Arg His Asn Asp His Ala Leu Ser Thr Lys Met Ile Asp
                180                185                190
Arg Ile Phe Ser Gly Ala Val Thr Arg Gly Arg Lys Val Gln Lys Glu
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Gly Lys Ile Ser Tyr Ala Asp Phe Val Trp Phe Leu Ile Ser Glu Glu
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Asp Lys Lys Thr Pro Thr Ser Ile Glu Tyr Trp Phe Arg Cys Met Asp
225                230                235                240
Leu Asp Gly Asp Gly Ala Leu Ser Met Phe Glu Leu Glu Tyr Phe Tyr
                245                250                255
Glu Glu Gln Cys Arg Arg Leu Asp Ser Met Ala Ile Glu Ala Leu Pro
                260                265                270
Phe Gln Asp Cys Leu Cys Gln Met Leu Asp Leu Val Lys Pro Arg Thr
                275                280                285
Glu Gly Lys Ile Thr Leu Gln Asp Leu Lys Arg Cys Lys Leu Ala Asn
                290                295                300
Val Phe Phe Asp Thr Phe Phe Asn Ile Glu Lys Tyr Leu Asp His Glu
305                310                315                320
Gln Lys Glu Gln Ile Ser Leu Leu Arg Asp Gly Asp Ser Gly Gly Pro
                325                330                335
Glu Leu Ser Asp Trp Glu Lys Tyr Ala Ala Glu Glu Tyr Asp Ile Leu
                340                345                350
Val Ala Glu Thr Val Gly Glu Pro Trp Glu Asp Gly Phe Glu Ala
                355                360                365
Glu Leu Ser Pro Val Glu Gln Lys Leu Ser Ala Leu Arg Ser Pro Leu
                370                375                380
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<210> 3083

<211> 610

<212> DNA

<213> Homo sapiens

<400> 3083

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<210> 3084

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3084

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			20					25					30		
Gln	Arg	Ser	Arg	Leu	His	Ala	Ala	Asp	Trp	Ala	Gly	Arg	Ala	Arg	Ala
			35				40					45			
Leu	Val	Gly	Asp	Ser	His	Thr	Ser	Trp	Ser	Pro	Ala	Ser	Ile	Pro	Gly
	50				55					60					
Lys	His	Tyr	Gln	Ala	Val	Gly	Leu	His	Leu	Trp	Lys	Val	Glu	Lys	Arg
65				70					75					80	
Arg	Val	Asn	Leu	Pro	Arg	Val	Leu	Ser	Met	Pro	Pro	Val	Ala	Gly	Thr
			85					90					95		
Ala	Cys	His	Ala	Tyr	Asp	Arg	Glu	Val	His	Leu	Arg	Cys	Glu	Leu	Ser
			100				105						110		
Pro	Gly	Tyr	Tyr	Leu	Ala	Val	Pro	Ser	Thr	Phe	Leu	Lys	Asp	Ala	Pro
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Gly	Glu	Phe	Leu	Leu	Arg	Val	Phe	Ser	Thr	Gly	Arg	Val	Ser	Leu	Arg
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<210> 3085

<211> 1080

<212> DNA

<213> Homo sapiens

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 180
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 480
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<210> 3086
 <211> 58
 <212> PRT
 <213> Homo sapiens

<400> 3086
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<210> 3087

<211> 2329

<212> DNA

<213> Homo sapiens

<400> 3087

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<210> 3088

<211> 280

<212> PRT

<213> Homo sapiens

<400> 3088

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Asp	Lys	Ile	Val	Ala	Asn	Glu	Tyr	Lys	Ser	Val	Thr	Glu	Phe	Lys	Ala
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Asp	Phe	Lys	Leu	Met	Cys	Asp	Asn	Ala	Met	Thr	Tyr	Asn	Arg	Pro	Asp

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Met Met Ser Lys Gln Ala Ala Leu Leu Gly Asn Glu Asp Thr Ala Val				
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Glu Glu Pro Val Pro Glu Val Val Pro Val Gln Val Glu Thr Ala Lys				
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Lys Ser Lys Lys Pro Ser Arg Glu Val Ile Ser Cys Met Phe Glu Pro				
	195		200	205
Glu Gly Asn Ala Cys Ser Leu Thr Asp Ser Thr Ala Glu Glu His Val				
	210		215	220
Leu Ala Leu Val Glu His Ala Ala Asp Glu Ala Arg Asp Arg Ile Asn				
225	230		235	240
Arg Phe Leu Pro Gly Gly Lys Met Gly Tyr Leu Lys Arg Asn Gly Asp				
	245		250	255
Gly Ser Leu Leu Tyr Ser Val Val Asn Thr Ala Glu Pro Asn Ala Asp				
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Glu Glu Glu Thr His Pro Val Thr				
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<210> 3089

<211> 722

<212> DNA

<213> Homo sapiens

<400> 3089

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722

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<210> 3090

<211> 240
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 <213> Homo sapiens

<400> 3090
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 35 40 45
 Gly Leu Ser Ser Pro Glu Phe Ser Glu Leu Cys Ile Trp Leu Gly Ser
 50 55 60
 Gln Ile Lys Ser Leu Cys Asn Leu Glu Glu Ser Ile Thr Ser Ala Gly
 65 70 75 80
 Arg Asp Asp Leu Glu Ser Phe Gln Leu Glu Ile Ser Gly Phe Leu Lys
 85 90 95
 Glu Met Ala Cys Pro Tyr Ser Val Leu Val Ser Gly Asp Ile Lys Glu
 100 105 110
 Arg Leu Thr Lys Lys Asp Asp Cys Leu Lys Leu Leu Phe Leu Ser
 115 120 125
 Thr Glu Leu Gln Ala Leu Gln Ile Leu Gln Asn Lys Lys His Lys Asn
 130 135 140
 Ser Gln Leu Asp Lys Asn Ser Glu Val Tyr Gln Glu Val Gln Ala Met
 145 150 155 160
 Phe Asp Thr Leu Gly Ile Pro Lys Ser Thr Thr Ser Asp Ile Pro His
 165 170 175
 Met Leu Asn Gln Val Glu Ser Lys Val Lys Asp Ile Leu Ser Lys Val
 180 185 190
 Gln Lys Asn His Val Gly Lys Pro Leu Leu Lys Met Asp Leu Asn Ser
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<210> 3091
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 <212> DNA
 <213> Homo sapiens

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<210> 3092
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 3092
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 Ser Arg Lys Arg Glu Pro Arg Asp Gly Val Lys Glu Trp Gly Ser Gln
 35 40 45
 Ala Phe Ser Asn His Phe Gly Thr Leu Gly Arg Arg Gly Arg Pro Gly
 50 55 60
 Gly Thr Lys Gly Leu Gly Cys Ser Leu Ser Val Pro Asp Pro Cys Gln
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 Ala Lys Met Val Trp Gln Arg Gly Glu Gln Leu Leu Pro Arg Ala Ser
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 <211> 720
 <212> DNA
 <213> Homo sapiens

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<210> 3094

<211> 179
 <212> PRT
 <213> Homo sapiens

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 Lys Thr Gln Thr Glu Tyr Gln Leu Ser Ser Pro Asp Gln Gln Asn Phe
 50 55 60
 Pro Asp Leu Glu Gly Gln Arg Leu Asn Cys Ser His Pro Glu Glu Gly
 65 70 75 80
 Arg Arg Leu Pro Thr Ala Arg Met Ile Ala Phe Ala Met Ala Leu Leu
 85 90 95
 Gly Cys Val Leu Ile Met Tyr Lys Ala Ile Trp Tyr Asp Gln Phe Thr
 100 105 110
 Cys Pro Asp Gly Phe Leu Leu Arg His Lys Ile Cys Thr Pro Leu Thr
 115 120 125
 Leu Glu Met Tyr Tyr Thr Glu Met Asp Pro Glu Arg His Arg Ser Ile
 130 135 140
 Leu Ala Ala Ile Gly Ala Tyr Pro Leu Ser Arg Lys His Gly Thr Glu
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 Lys Gly Pro

<210> 3095
 <211> 519
 <212> DNA
 <213> Homo sapiens

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<210> 3096
 <211> 159
 <212> PRT
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 65 70 75 80
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 Gly Tyr Gln Asp Pro Tyr Ser Gly Arg Thr Leu Thr Lys Gly Glu Val
 100 105 110
 Gly Cys Phe Leu Ser His Tyr Ser Ile Trp Glu Glu Arg Ala Val Gln
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<210> 3097
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 <212> DNA
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<211> 1359

<212> PRT

<213> Homo sapiens

<400> 3098

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Gly	Pro	Ser	Arg	Gly	Ser	Gly	Gly	Gly	Arg	Gly	Gly	Leu	Arg	Ala	
			35				40					45			
Asp	Gly	Arg	Ala	Pro	Gly	Leu	Arg	Gly	Leu	Gly	Ala	Ala	Pro	His	Cys
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Pro	Ala	Gly	Leu	Gly	Pro	Gly	Ala	Met	Ser	Gly	Gly	Gly	Gly	Gly	Gly

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Asp Thr Glu Thr Gly Leu Glu Pro Asp Glu Leu Ser Ala Leu Cys Gln
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Ser Thr Thr Glu Gly Glu Asn Phe Glu Gln Thr Pro Leu Arg Arg Thr
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Phe Lys Ser Lys Val Leu Ala Arg Tyr Pro Glu Asn Val Glu Trp Asn
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Pro Phe Asp Gln Asp Ala Val Gly Met Leu Cys Met Pro Lys Gly Leu
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Ala Phe Lys Thr Gln Ala Asp Pro Arg Glu Pro Gln Phe His Ala Phe
      180         185         190
Ile Ile Thr Arg Glu Asp Gly Ser Arg Thr Phe Gly Phe Ala Leu Thr
      195         200         205
Phe Tyr Glu Glu Val Thr Ser Lys Gln Ile Cys Ser Ala Met Gln Thr
      210         215         220
Leu Tyr His Met His Asn Ala Glu Tyr Asp Val Leu His Ala Pro Pro
225         230         235         240
Ala Asp Asp Arg Asp Gln Ser Ser Met Glu Asp Gly Glu Asp Thr Pro
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Val Thr Lys Leu Gln Arg Phe Asn Ser Tyr Asp Ile Ser Arg Asp Thr
      260         265         270
Leu Tyr Val Ser Lys Cys Ile Cys Leu Ile Thr Pro Met Ser Phe Met
      275         280         285
Lys Ala Cys Arg Ser Val Pro Gly Gln Leu His Gln Ala Val Thr Ser
      290         295         300
Pro Gln Pro Pro Pro Leu Pro Leu Glu Ser Tyr Ile Tyr Asn Val Leu
305         310         315         320
Tyr Glu Val Pro Leu Pro Pro Pro Gly Arg Ser Leu Lys Phe Ser Gly
      325         330         335
Val Tyr Trp Pro Ile Ile Cys Gln Arg Pro Ser Thr Asn Glu Leu Pro
      340         345         350
Leu Phe Asp Phe Pro Val Lys Glu Val Phe Glu Leu Leu Gly Val Glu
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Asn Val Phe Gln Leu Phe Thr Cys Ala Leu Leu Glu Phe Gln Ile Leu
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Thr Ala Leu Met Phe Pro Phe Gln Trp Gln His Val Tyr Val Pro Ile
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Met Gly Leu His Ser Asn Gly Leu Asp Asp Arg Ser Lys Leu Glu Leu
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Pro Gln Glu Ala Asn Leu Cys Phe Val Asp Ile Asp Asn His Phe Ile
      450         455         460
Glu Leu Pro Glu Asp Leu Pro Gln Phe Pro Asn Lys Leu Glu Phe Val
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Gln Glu Val Ser Glu Ile Leu Met Ala Phe Gly Ile Pro Pro Glu Gly
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Asn Leu His Cys Ser Glu Ser Ala Ser Lys Leu Lys Arg Leu Arg Ala

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Ala Asn Arg Phe Thr Gln Met Phe Ala Asp Tyr Glu Val Phe Val Ile		
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Gln Pro Ser Gln Asp Lys Glu Ser Trp Phe Thr Asn Arg Glu Gln Met		
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Gln Asn Phe Asp Lys Ala Ser Phe Leu Ser Asp Gln Pro Glu Pro Tyr		
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Leu Pro Phe Leu Ser Arg Phe Leu Glu Thr Gln Met Phe Ala Phe Phe		
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Ile Asp Asn Lys Ile Met Cys His Asp Asp Asp Lys Asp Pro Val		
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675	680	685
Arg Thr Pro Thr Leu Arg Thr Ser Met Tyr Gln Lys Cys Thr Thr Val		
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Thr Ala Ile His Pro His Leu Leu Asp Met Lys Ile Gly Gln Gly Lys		
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Tyr Glu Pro Gly Phe Phe Pro Lys Leu Gln Ser Asp Val Leu Cys Thr		
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755	760	765
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770	775	780
Asn Asp Gln Arg Glu Lys Tyr Ile Gln Glu Ala Arg Thr Met Gly Ser		
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Gln Val Lys Gln Gly Lys Ser Ala Leu Trp Ser His Leu Leu His Tyr		
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Phe Asn Ala Val Asp Tyr Phe Cys Phe Thr Asn Val Phe Thr Thr Ile		1005
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Gly Lys Gly Met Asp Asp Gly Ser Leu Glu Arg Ile Leu Val Gly Glu		1120
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	1205	1210
Ser Ala Leu Glu Gln Ala Phe Gln His Gly Phe Lys Ser Pro Arg Leu		1215
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	1235	1240
Tyr Glu Thr Leu Glu Lys Asn Glu Val Val Pro Glu Glu Asn Trp His		1245
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	1300	1305
Cys Pro Ile Thr Ala His Met Tyr Glu Asp Val Ala Leu Ile Lys Asp		1310
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His Thr Leu Val Asn Ser Leu Ile Arg Val Leu Gln Thr Leu Gln Glu		1325
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<211> 1001

<212> DNA

<213> Homo sapiens

<400> 3099

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<213> Homo sapiens

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20          25          30
Phe Thr Leu Pro Phe Trp Ala Val Asn Ala Val His Gly Trp Val Leu
35          40          45
Gly Lys Ile Met Cys Lys Ile Thr Ser Ala Leu Tyr Thr Leu Asn Phe

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Val Ser Gly Met Gln Phe Leu Ala Cys Ile Ser Ile Asp Arg Tyr Val
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Ile Ile Cys Phe Cys Val Trp Met Ala Ala Ile Leu Leu Ser Ile Pro
      100             105             110
Gln Leu Val Phe Tyr Thr Val Asn Asp Asn Ala Arg Cys Ile Pro Ile
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Phe Pro Arg Tyr Leu Gly Thr Ser Met Lys Ala Leu Ile His Met Leu
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<210> 3101

<211> 2623

<212> DNA

<213> Homo sapiens

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 <212> PRT
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<400> 3102

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Gln	Tyr	Ala	Gly	Pro	Gly	Leu	Ser	Leu	Gly	Ala	Pro	Gly	Gly	Arg	Ala
		35					40					45			
Pro	Pro	Asp	Asp	Leu	Asp	Leu	Phe	Pro	Thr	Pro	Asp	Pro	His	Tyr	Glu
		50				55					60				
Lys	Lys	Tyr	Tyr	Phe	Pro	Val	Arg	Glu	Leu	Glu	Arg	Ser	Leu	Arg	Phe
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Phe	Tyr	Tyr	Ile	Thr	Leu	Leu	Arg	Asp	Pro	Val	Ser	Arg	Tyr	Leu	Ser
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Phe	Phe	Gly	Leu	Thr	Glu	Phe	Gln	Arg	Lys	Thr	Gln	Tyr	Leu	Phe	Glu
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Arg	Thr	Phe	Asn	Leu	Lys	Phe	Ile	Arg	Pro	Phe	Met	Gln	Tyr	Asn	Ser
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Glu	Glu	Leu	Asn	Asp	Leu	Asp	Met	Gln	Leu	Tyr	Asp	Tyr	Ala	Lys	Asp
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Leu	Phe	Gln	Gln	Arg	Tyr	Gln	Tyr	Lys	Arg	Gln	Leu	Glu	Arg	Arg	Glu
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Gln	Arg	Leu	Arg	Ser	Arg	Glu	Glu	Arg	Leu	Leu	His	Arg	Ala	Lys	Glu

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 <212> DNA
 <213> Homo sapiens

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His Asp Lys Leu Phe Gln Leu Ser Arg Pro Phe Ala Gly Phe Glu Asp
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Phe Leu Pro Ser His Ser Thr Pro Leu Leu Val Ser Tyr Gln Glu Gln
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Ala Glu Glu Leu Gly His Thr Glu Thr Tyr Ala Asp Tyr Val Pro Ser
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Lys Ser Lys Ile Gly Lys Gln His Pro Asp Arg Val Val Glu Thr Ser
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Pro	Lys	His	Trp	Thr	Lys	Glu	Arg	His	Gln	Phe	Leu	Met	Glu	Leu	Lys
		35				40					45				
Gln	Glu	Ala	Leu	Thr	Phe	Ala	Arg	Asn	Trp	Gly	Ala	Asp	Tyr	Ile	Leu
	50				55					60					
Phe	Ala	Asp	Thr	Asp	Asn	Ile	Leu	Thr	Asn	Asn	Gln	Thr	Leu	Arg	Leu
65					70				75					80	
Leu	Met	Gly	Gln	Gly	Leu	Pro	Val	Val	Ala	Pro	Met	Leu	Asp	Ser	Gln
			85					90					95		
Thr	Tyr	Tyr	Ser	Asn	Phe	Trp	Cys	Gly	Ile	Thr	Pro	Gln	Gly	Tyr	Tyr
		100					105					110			
Arg	Arg	Thr	Ala	Glu	Tyr	Phe	Pro	Thr	Lys	Asn	Arg	Gln	Arg	Arg	Gly
	115					120						125			
Cys	Phe	Arg	Val	Pro	Met	Val	His	Ser	Thr	Phe	Leu	Ala	Ser	Leu	Arg
	130					135					140				
Ala	Glu	Gly	Ala	Asp	Gln	Leu	Ala	Phe	Tyr	Pro	Pro	His	Pro	Asn	Tyr
145				150					155					160	
Thr	Trp	Pro	Phe	Asp	Asp	Ile	Ile	Val	Phe	Ala	Tyr	Ala	Cys	Gln	Ala
			165					170					175		
Ala	Gly	Val	Ser	Val	His	Val	Cys	Asn	Glu	His	Arg	Tyr	Gly	Tyr	Met

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      180      185      190
Asn Val Pro Val Lys Ser His Gln Gly Leu Glu Asp Glu Arg Val Asn
      195      200      205
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      210      215      220
Ala Ser Ala His Val Thr Arg Pro Ser Lys Arg Pro Ser Lys Ile Gly
225      230      235      240
Phe Asp Glu Val Phe Val Ile Ser Leu Ala Arg Arg Pro Asp Arg Arg
      245      250      255
Glu Arg Met Leu Ala Ser Leu Trp Glu Met Glu Ile Ser Gly Arg Val
      260      265      270
Val Asp Ala Val Asp Gly Trp Met Leu Asn Ser Ser Ala Ile Arg Asn
      275      280      285
Leu Gly Val Asp Leu Leu Pro Gly Tyr Gln Asp Pro Tyr Ser Gly Arg
      290      295      300
Thr Leu Thr Lys Gly Glu Val Gly Cys Phe Leu Ser His Tyr Ser Ile
305      310      315      320
Trp Glu Glu Val Val Ala Arg Gly Leu Ala Arg Val Leu Val Phe Glu
      325      330      335
Asp Asp Val Arg Phe Glu Ser Asn Phe Arg Gly Arg Leu Glu Arg Leu
      340      345      350
Met Glu Asp Val Glu Ala Glu Lys Leu Ser Trp Asp Leu Ile Tyr Leu
      355      360      365
Gly Arg Lys Gln Val Asn Pro Glu Lys Glu Thr Ala Val Glu Gly Leu
      370      375      380
Pro Gly Leu Val Val Ala Gly Tyr Ser Tyr Trp Thr Leu Ala Tyr Ala
385      390      395      400
Leu Arg Leu Ala Gly Ala Arg Lys Leu Leu Ala Ser Gln Pro Leu Arg
      405      410      415
Arg Met Leu Pro Val Asp Glu Phe Leu Pro Ile Met Phe Asp Gln His
      420      425      430
Pro Asn Glu Gln Tyr Lys Ala His Phe Trp Pro Arg Asp Leu Val Ala
      435      440      445
Phe Ser Ala Gln Pro Leu Leu Ala Ala Pro Thr His Tyr Ala Gly Asp
      450      455      460
Ala Glu Trp Leu Ser Asp Thr Glu Thr Ser Ser Pro Trp Asp Asp Asp
465      470      475      480
Ser Gly Arg Leu Ile Ser Trp Ser Gly Ser Gln Lys Thr Leu Arg Ser
      485      490      495
Pro Arg Leu Asp Leu Thr Gly Ser Ser Gly His Ser Leu Gln Pro Gln
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Pro Arg Asp Glu Leu
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<210> 3109

<211> 959

<212> DNA

<213> Homo sapiens

<400> 3109

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120

cctggaatct ggaaggatct acttcactcg atccctccac agtcagcagg acaactttat
 180
 tccagtctgg gggacgcctt acccgagga gctgccaatc actgcagacg aagatgctca
 240
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 300
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 360
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 420
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 660
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 840
 agcagtcagt tcctggcagt tgggagctat gatggaaagg tgcgcatcct taatcacgtg
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 959

<210> 3110

<211> 207

<212> PRT

<213> Homo sapiens

<400> 3110

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Trp	His	Cys	Lys	Ile	Asp	Glu	Gly	Ser	Ala	Gly	Leu	Val	Ala	Ser	Cys
			20					25					30		
Trp	Ser	Pro	Asp	Gly	Arg	His	Ile	Leu	Asn	Thr	Thr	Glu	Phe	His	Leu
			35				40					45			
Arg	Ile	Thr	Val	Trp	Ser	Leu	Cys	Thr	Lys	Ser	Val	Ser	Tyr	Ile	Lys
	50					55					60				
Tyr	Pro	Lys	Ala	Cys	Leu	Gln	Gly	Ile	Thr	Phe	Thr	Arg	Asp	Gly	Arg
65					70					75				80	
Tyr	Met	Ala	Leu	Ala	Glu	Arg	Arg	Asp	Cys	Lys	Asp	Tyr	Val	Ser	Ile
				85					90					95	
Phe	Val	Cys	Ser	Asp	Trp	Gln	Leu	Leu	Arg	His	Phe	Asp	Thr	Asp	Thr
			100					105					110		
Gln	Asp	Leu	Thr	Gly	Ile	Glu	Trp	Ala	Pro	Asn	Gly	Cys	Val	Leu	Ala
		115					120					125			
Val	Trp	Asp	Thr	Cys	Leu	Glu	Trp	Lys	Ile	Leu	Leu	Tyr	Ser	Leu	Asp
	130					135					140				
Gly	Arg	Leu	Leu	Ser	Thr	Tyr	Ser	Ala	Xaa	Arg	Val	Val	Xaa	Leu	Gly

145					150					155				160	
Ile	Lys	Ser	Val	Ala	Trp	Ser	Pro	Ser	Ser	Gln	Phe	Leu	Ala	Val	Gly
				165					170					175	
Ser	Tyr	Asp	Gly	Lys	Val	Arg	Ile	Leu	Asn	His	Val	Thr	Trp	Lys	Met
			180					185					190		
Ile	Thr	Glu	Phe	Gly	His	Pro	Cys	Ser	Pro	Ile	Asn	Asp	Ser	Gln	
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<210> 3111

<211> 1269

<212> DNA

<213> Homo sapiens

<400> 3111

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120
aactacagaa tgcacgggtt cagaaagcta ttttaagtta tttacaaata aagtatctaa
180
aactcaaaaa caggctctgt atgctatata tagtttatcc cttcccgaac aaaatttctg
240
ttatttgggc aaattcttaa accatgggtt aaaccgtaat ggttacaaac cacaacaca
300
tccatccaga gactgaaacc gtttctatcc ggtcagtggc aaaactgttg aaagggcaat
360
agttgaagct gttgggtttt atatagtgtg aactctgata aatattccta ccaggactaa
420
aacacagcac gctttgcggg catggctgac tcacaaaggt tgtaacaaac aagaactact
480
cttcaactga caccatggct cagaggccac cgagaagcac gagtgaactga cagctcctct
540
gcttacaaac gaatgaaacc caaagtggat gtcgttctca cagcactgaa agtgcttcag
600
gactcacact gatccaatac taactttctt ccctatttta cacatatttt tctactgtcc
660
agtggaatac attttctgtt ttggctaaac acaaataact agtttataac aggaatggta
720
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1140
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1200

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 1260
 gtcatccac
 1269

<210> 3112
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 3112
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 20 25 30
 Glu Gly Arg Arg Gly Ala Arg Thr Ala Gly Leu Arg Gly Arg Pro Trp
 35 40 45
 Arg Asp Trp Glu Glu Arg Arg Gly Val Thr Thr Val Gln His Pro Glu
 50 55 60
 Lys Ser Asp Trp Gln Thr Arg Thr Gly Gln Pro Cys Ser Cys Met Ile
 65 70 75 80
 Gln Glu Leu Ala Ser Glu Arg Glu Ser Val Ala Glu Ala Gly Gly Ser
 85 90 95
 Ala Arg Gln Lys Val Arg Gly Leu Val Leu Arg Arg Gly Lys Arg Gln
 100 105 110
 Ser Glu Ser Leu His Ala Pro Gly Leu His Gly Arg Ala Arg Ala Ser
 115 120 125
 Gln Lys Arg Val Asn Asp Pro Glu Cys Asp Trp Glu Gly Glu Leu Ile
 130 135 140
 Pro Tyr Gln Glu Thr Gly Ser
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<210> 3113
 <211> 631
 <212> DNA
 <213> Homo sapiens

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 120
 ccaaaaggga aggagatagt aagcctgctg gaaagaaaca tcaccgtgac aatgtacatc
 180
 accatcgga cccggaactt gcagaaatat gtgagccgca cttcggttgt gtttgtctcc
 240
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 300
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 360
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 420
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 480

ctgccctgcc ggcattttt ccacaagtcc tgtgttgacc cctggcttct agaccatcgt
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<210> 3114
 <211> 210
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Leu Glu Arg Asn Ile Thr Val Thr Met Tyr Ile Thr Ile Gly Thr
 50 55 60
 Arg Asn Leu Gln Lys Tyr Val Ser Arg Thr Ser Val Val Phe Val Ser
 65 70 75 80
 Ile Ser Phe Ile Val Leu Met Ile Ile Ser Leu Ala Trp Leu Val Phe
 85 90 95
 Tyr Tyr Ile Gln Arg Phe Arg Tyr Ala Asn Ala Arg Asp Arg Asn Gln
 100 105 110
 Arg Arg Leu Gly Asp Ala Ala Lys Lys Ala Ile Ser Lys Leu Gln Ile
 115 120 125
 Arg Thr Ile Lys Lys Gly Asp Lys Glu Thr Glu Ser Asp Phe Asp Asn
 130 135 140
 Cys Ala Val Cys Ile Glu Gly Tyr Lys Pro Asn Asp Val Val Arg Ile
 145 150 155 160
 Leu Pro Cys Arg His Leu Phe His Lys Ser Cys Val Asp Pro Trp Leu
 165 170 175
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 180 185 190
 Leu Gly Ile Pro Pro Asn Ala Asp Cys Met Asp Asp Phe Ala Thr Asp
 195 200 205
 Phe Glu
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<210> 3115
 <211> 1366
 <212> DNA
 <213> Homo sapiens

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 180

ctatactttg cacaatcaga gaatatagct gctcatgaga attgtttgct gtattcttca
 240
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 360
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 420
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 480
 cagcaacatg ctcaattccc gatcatcgct caaagtggta aattttcagg agtgaaaaga
 540
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 600
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 660
 aaagttcctt ttcttaagaa atgcaagnga agcaggactt ctttaattact tacttgaaga
 720
 aatattagac aaagttcatt caattccaga aaaactcatg gatgagacta cttcagaatc
 780
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 aaattttcaa gcagcaatag agaaaaaaat tcatgcatct caacaaaggt ggcagcagtt
 900
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 960
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 1020
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 1080
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 1140
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 1366

<210> 3116

<211> 191

<212> PRT

<213> Homo sapiens

<400> 3116

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			20					25				30			
Leu	Leu	Tyr	Ser	Ser	Gly	Leu	Val	Glu	Cys	Glu	Asp	Gln	Asp	Pro	Leu
			35				40				45				
Asn	Pro	Asp	Arg	Ser	Phe	Asp	Val	Glu	Ser	Val	Lys	Lys	Glu	Ile	Gln

50	55	60	
Arg Gly Arg Lys Leu Lys Cys Lys Phe Cys His Lys Arg Gly Ala Thr			
65	70	75	80
Val Gly Cys Asp Leu Lys Asn Cys Asn Lys Asn Tyr His Phe Phe Cys			
	85	90	95
Ala Lys Lys Asp Asp Ala Val Pro Gln Ser Asp Gly Val Arg Gly Ile			
	100	105	110
Tyr Lys Leu Leu Cys Gln Gln His Ala Gln Phe Pro Ile Ile Ala Gln			
	115	120	125
Ser Gly Lys Phe Ser Gly Val Lys Arg Lys Arg Gly Arg Lys Lys Pro			
	130	135	140
Leu Ser Gly Asn His Val Gln Pro Pro Glu Thr Met Lys Cys Asn Thr			
145	150	155	160
Phe Ile Arg Gln Val Lys Glu Glu His Gly Arg His Thr Asp Ala Thr			
	165	170	175
Val Lys Val Pro Phe Leu Lys Lys Cys Lys Xaa Ser Arg Thr Ser			
	180	185	190

<210> 3117

<211> 1373

<212> DNA

<213> Homo sapiens

<400> 3117

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480
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600
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660
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720
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900

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 1020
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<210> 3118

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3118

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Ser	Ser	Ile	Ser	Cys	Gln	Pro	Pro	Ala	Glu	Ile	Pro	Gly	Tyr	Leu	Pro
		20						25					30		
Ala	Asp	Thr	Val	His	Leu	Ala	Val	Glu	Phe	Phe	Asn	Leu	Thr	His	Leu
		35					40					45			
Pro	Ala	Asn	Leu	Leu	Gln	Gly	Ala	Ser	Lys	Leu	Gln	Glu	Leu	His	Leu
		50				55					60				
Ser	Ser	Asn	Gly	Leu	Glu	Ser	Leu	Ser	Pro	Glu	Phe	Leu	Arg	Pro	Val
65					70					75				80	
Pro	Gln	Leu	Arg	Val	Leu	Asp	Leu	Thr	Arg	Asn	Ala	Leu	Thr	Gly	Leu
				85					90					95	
Pro	Pro	Gly	Leu	Phe	Gln	Ala	Ser	Ala	Thr	Leu	Asp	Thr	Leu	Val	Leu
		100						105					110		
Lys	Glu	Asn	Gln	Leu	Glu	Val	Leu	Glu	Val	Ser	Trp	Leu	His	Gly	Leu
		115					120					125			
Lys	Ala	Leu	Gly	His	Leu	Asp	Leu	Ser	Gly	Asn	Arg	Leu	Arg	Lys	Leu
		130				135					140				
Pro	Pro	Gly	Leu	Leu	Ala	Asn	Phe	Thr	Leu	Leu	Arg	Thr	Leu	Asp	Leu
145					150						155			160	
Gly	Glu	Asn	Gln	Leu	Glu	Thr	Leu	Pro	Pro	Asp	Leu	Leu	Arg	Gly	Pro
				165					170					175	
Leu	Gln	Leu	Glu	Arg	Leu	His	Leu	Glu	Gly	Asn	Lys	Leu	Gln	Val	Leu
			180					185					190		
Gly	Lys	Asp	Leu	Leu	Leu	Pro	Gln	Pro	Asp	Leu	Arg	Tyr	Leu	Phe	Leu
		195				200						205			
Ser	Gly	Asn	Lys	Leu	Ala	Arg	Val	Ala	Ala	Gly	Ala	Phe	Gln	Gly	Leu
		210				215						220			
Arg	Gln	Leu	Asp	Met	Leu	Asp	Leu	Ser	Asn	Asn	Ser	Leu	Ala	Ser	Val
225					230					235				240	
Pro	Glu	Gly	Leu	Trp	Ala	Ser	Leu	Gly	Gln	Pro	Asn	Trp	Asp	Met	Arg

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                245                250                255
Asp Gly Phe Asp Ile Ser Gly Asn Pro Trp Ile Cys Asp Gln Asn Leu
                260                265                270
Ser Asp Leu Tyr Arg Trp Leu Gln Ala Gln Lys Asp Lys Met Phe Ser
                275                280                285
Gln Asn Asp Thr Arg Cys Ala Gly Pro Glu Ala Val Lys Gly Gln Thr
                290                295                300
Leu Leu Ala Val Ala Lys Ser Gln
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<210> 3119

<211> 427

<212> DNA

<213> Homo sapiens

<400> 3119

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240
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427

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<210> 3120

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3120

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20     25     30
His Lys Lys Val Met Lys Glu Arg Tyr Val Glu Val Val Pro Cys Ser
35     40     45
Thr Glu Glu Met Ser Arg Val Leu Met Gly Gly Thr Leu Gly Arg Ser
50     55     60
Gly Met Ser Pro Pro Pro Cys Lys Leu Pro Cys Leu Ser Pro Pro Thr
65     70     75     80
Tyr Thr Thr Phe Gln Ala Thr Pro Thr Leu Ile Pro Thr Glu Thr Ala
85     90     95
Ala Leu Tyr Pro Ser Ser Ala Leu Leu Pro Ala Ala Arg Val Pro Ala
100    105    110
Ala Pro Thr Pro Val Ala Tyr Tyr Pro Gly Pro Ala Thr Gln Leu Tyr

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115 120 125
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<210> 3121
 <211> 284
 <212> DNA
 <213> Homo sapiens

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 120
 taagaggaac atgaacctgg acggggcagc ttccattgtc cctctcctgc tcctgctaata
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 284

<210> 3122
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 3122
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 Ser His Val Arg Arg Asn Lys Arg Asn Met Asn Leu Asp Gly Ala Ala
 35 40 45
 Ser Ile Val Pro Leu Leu Leu Leu Met Asn Lys Ala Ser Pro Glu
 50 55 60
 Tyr Glu Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Arg
 65 70 75 80
 Gly Arg Phe Ser Leu Phe Trp Trp Thr Val Val
 85 90

<210> 3123
 <211> 344
 <212> DNA
 <213> Homo sapiens

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 gcagcccagg tgaccttcag aaagacattg gagaaggaag caaagggaga ggagcccagc
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 240

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<210> 3124
 <211> 92
 <212> PRT
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<400> 3124
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 20 25 30
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 35 40 45
 Gly Glu Ser Asp Gly Ala Tyr Ile His Arg Met Gln Gln Glu Ala Gln
 50 55 60
 His Val Leu Phe Leu Ser Lys Asn Gln Ala Ile Arg Gln Pro Glu Val
 65 70 75 80
 Gln Ala Ala Pro Lys Glu Lys Ser Glu Gln Lys Lys
 85 90

<210> 3125
 <211> 647
 <212> DNA
 <213> Homo sapiens

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 420
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<210> 3126

<211> 116
 <212> PRT
 <213> Homo sapiens

<400> 3126
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 His Arg Leu Ser Leu Phe Val Leu Met Asp Glu Ser Glu Ser Gln Thr
 35 40 45
 His Leu Phe Cys Ser Ser Ser Ser Leu Gly Arg Glu His Arg Lys Met Gly
 50 55 60
 Phe Ala Tyr Val Cys Val Trp Gly Gly Leu Phe Phe Leu Cys Phe Ser
 65 70 75 80
 Val Leu Ala Ile Ala Cys Gly Arg Ala Gly Thr Trp Asp Leu Ala Arg
 85 90 95
 Leu Leu Ala Trp Ala Glu Ala Thr Trp Gly Val Leu Pro Ser Thr Phe
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 Cys Asp Val Pro
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<210> 3127
 <211> 2218
 <212> DNA
 <213> Homo sapiens

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 240
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<210> 3128

<211> 565

<212> PRT

<213> Homo sapiens

<400> 3128

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 Gln Glu Gly Lys Ile Pro Asp Glu Thr Leu Glu Lys Leu Lys Ser Leu
 35 40 45
 Gly Leu Phe Gly Leu Gln Val Pro Glu Glu Tyr Gly Gly Leu Gly Phe
 50 55 60
 Ser Asn Thr Met Tyr Ser Arg Leu Gly Glu Ile Ile Ser Met Asp Gly
 65 70 75 80
 Ser Ile Thr Val Thr Leu Ala Ala His Gln Ala Ile Gly Leu Lys Gly
 85 90 95
 Ile Ile Leu Ala Gly Thr Glu Glu Gln Lys Ala Lys Tyr Leu Pro Lys
 100 105 110
 Leu Ala Ser Gly Glu His Ile Ala Ala Phe Cys Leu Thr Glu Pro Ala
 115 120 125
 Ser Gly Ser Asp Ala Ala Ser Ile Arg Ser Arg Ala Thr Leu Ser Glu
 130 135 140
 Asp Lys Lys His Tyr Ile Leu Asn Gly Ser Lys Val Trp Ile Thr Asn
 145 150 155 160
 Gly Gly Leu Ala Asn Ile Phe Thr Val Phe Ala Lys Thr Glu Val Val
 165 170 175
 Asp Ser Asp Gly Ser Val Lys Asp Lys Ile Thr Ala Phe Ile Val Glu
 180 185 190
 Arg Asp Phe Gly Gly Val Thr Asn Gly Lys Pro Glu Asp Lys Leu Gly
 195 200 205
 Ile Arg Gly Ser Asn Thr Cys Glu Val His Phe Glu Asn Thr Lys Ile
 210 215 220
 Pro Val Glu Asn Ile Leu Gly Glu Val Gly Asp Gly Phe Lys Val Ala
 225 230 235 240
 Met Asn Ile Leu Asn Ser Gly Arg Phe Ser Met Gly Ser Val Val Ala
 245 250 255
 Gly Leu Leu Lys Arg Leu Ile Glu Met Thr Ala Glu Tyr Ala Cys Thr
 260 265 270
 Arg Lys Gln Phe Asn Lys Arg Leu Ser Glu Phe Gly Leu Ile Gln Glu
 275 280 285
 Lys Phe Ala Leu Met Ala Gln Lys Ala Tyr Val Met Glu Ser Met Thr
 290 295 300
 Tyr Leu Thr Ala Gly Met Leu Asp Gln Pro Gly Phe Pro Asp Cys Ser
 305 310 315 320
 Ile Glu Ala Ala Met Val Lys Val Phe Ser Ser Glu Ala Ala Trp Gln
 325 330 335
 Cys Val Ser Glu Ala Leu Gln Ile Leu Gly Gly Leu Gly Tyr Thr Arg
 340 345 350
 Asp Tyr Pro Tyr Glu Arg Ile Leu Arg Asp Thr Arg Ile Leu Leu Ile
 355 360 365
 Phe Glu Gly Thr Asn Glu Ile Leu Arg Met Tyr Ile Ala Leu Thr Gly
 370 375 380
 Leu Gln His Ala Gly Arg Ile Leu Thr Thr Arg Ile His Glu Leu Lys
 385 390 395 400
 Gln Ala Lys Val Ser Thr Val Met Asp Thr Val Gly Arg Arg Leu Arg
 405 410 415
 Asp Ser Leu Gly Arg Thr Val Asp Leu Gly Leu Thr Gly Asn His Gly

420 425 430
 Val Val His Pro Ser Leu Ala Asp Ser Ala Asn Lys Phe Glu Glu Asn
 435 440 445
 Thr Tyr Cys Phe Gly Arg Thr Val Glu Thr Leu Leu Leu Arg Phe Gly
 450 455 460
 Lys Thr Ile Met Glu Glu Gln Leu Val Leu Lys Arg Val Ala Asn Ile
 465 470 475 480
 Leu Ile Asn Leu Tyr Gly Met Thr Ala Val Leu Ser Arg Ala Ser Arg
 485 490 495
 Ser Ile Arg Ile Gly Leu Arg Asn His Asp His Glu Val Leu Leu Ala
 500 505 510
 Asn Thr Phe Cys Val Glu Ala Tyr Leu Gln Asn Leu Phe Ser Leu Ser
 515 520 525
 Gln Leu Asp Lys Tyr Ala Pro Glu Asn Leu Asp Glu Gln Ile Lys Lys
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 Leu Asp Arg Thr Cys
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<210> 3129

<211> 1964

<212> DNA

<213> Homo sapiens

<400> 3129

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<210> 3130

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3130

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			20				25						30		
Gly	Pro	Gly	Ala	Ala	Gln	Glu	Pro	Thr	Trp	Leu	Thr	Asp	Val	Pro	Ala
			35				40					45			
Ala	Met	Glu	Phe	Ile	Ala	Ala	Thr	Glu	Val	Ala	Val	Ile	Gly	Phe	Phe
	50					55					60				
Gln	Asp	Leu	Glu	Ile	Pro	Ala	Val	Pro	Ile	Leu	His	Ser	Met	Val	Gln

65					70					75					80
Lys	Phe	Pro	Gly	Val	Ser	Phe	Gly	Ile	Ser	Thr	Asp	Ser	Glu	Val	Leu
				85					90					95	
Thr	His	Tyr	Asn	Ile	Thr	Gly	Asn	Thr	Ile	Cys	Leu	Phe	Arg	Leu	Val
			100					105					110		
Asp	Asn	Glu	Gln	Leu	Asn	Leu	Glu	Asp	Glu	Asp	Ile	Glu	Ser	Ile	Asp
		115					120					125			
Ala	Thr	Lys	Leu	Ser	Arg	Phe	Ile	Glu	Ile	Asn	Ser	Leu	His	Met	Val
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Thr	Glu	Tyr	Asn	Pro	Val	Thr	Val	Ile	Gly	Leu	Phe	Asn	Ser	Val	Ile
145					150					155					160
Gln	Ile	His	Leu	Leu	Leu	Ile	Met	Asn	Lys	Ala	Ser	Pro	Glu	Tyr	Glu
			165					170						175	
Glu	Asn	Met	His	Arg	Tyr	Gln	Lys	Ala	Ala	Lys	Leu	Phe	Gln	Gly	Lys
			180					185					190		
Ile	Leu	Phe	Ile	Leu	Val	Asp	Ser	Gly	Met	Lys	Glu	Asn	Gly	Lys	Val
	195						200					205			
Ile	Ser	Phe	Phe	Lys	Leu	Lys	Glu	Ser	Gln	Leu	Pro	Ala	Leu	Ala	Ile
	210					215					220				
Tyr	Gln	Thr	Leu	Asp	Asp	Glu	Trp	Asp	Thr	Leu	Pro	Thr	Ala	Glu	Val
225					230					235					240
Ser	Val	Glu	His	Val	Gln	Asn	Phe	Cys	Asp	Gly	Phe	Leu	Ser	Gly	Lys
			245					250						255	
Leu	Leu	Lys	Glu	Asn	Arg	Glu	Ser	Lys	Arg	Lys	Thr	Pro	Lys	Val	Glu
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Leu

<210> 3131

<211> 1544

<212> DNA

<213> Homo sapiens

<400> 3131

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<210> 3132

<211> 283

<212> PRT

<213> Homo sapiens

<400> 3132

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Gly	Ser	Thr	Gly	Thr	Ala	Glu	Gly	Gly	Asn	Met	Ser	Arg	Leu	Ser	Leu
			20					25					30		
Thr	Arg	Ser	Pro	Val	Ser	Pro	Leu	Ala	Ala	Gln	Gly	Ile	Pro	Leu	Pro
		35					40					45			
Ala	Gln	Leu	Thr	Lys	Ser	Asn	Ala	Pro	Val	His	Ile	Asp	Val	Gly	Gly
		50				55					60				
His	Met	Tyr	Thr	Ser	Ser	Leu	Ala	Thr	Leu	Thr	Lys	Tyr	Pro	Glu	Ser
65					70					75				80	
Arg	Ile	Gly	Arg	Leu	Phe	Asp	Gly	Thr	Glu	Pro	Ile	Val	Leu	Asp	Ser
				85					90					95	
Leu	Lys	Gln	His	Tyr	Phe	Ile	Asp	Arg	Asp	Gly	Gln	Met	Phe	Arg	Tyr
			100					105					110		
Ile	Leu	Asn	Phe	Leu	Arg	Thr	Ser	Lys	Leu	Leu	Ile	Pro	Asp	Asp	Phe

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Lys Asp Tyr Thr Leu Leu Tyr Glu Glu Ala Lys Tyr Phe Gln Leu Gln
      130      135      140
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145      150      155      160
Arg Phe Ser Arg Pro Cys Glu Cys Leu Val Val Arg Val Ala Pro Asp
      165      170      175
Leu Gly Glu Arg Ile Thr Leu Ser Gly Asp Lys Ser Leu Ile Glu Glu
      180      185      190
Val Phe Pro Glu Ile Gly Asp Val Met Cys Asn Ser Val Asn Ala Gly
      195      200      205
Trp Asn His Asp Ser Thr His Val Ile Arg Phe Pro Leu Asn Gly Tyr
      210      215      220
Cys His Leu Asn Ser Val Gln Val Leu Glu Arg Leu Gln Gln Arg Gly
225      230      235      240
Phe Glu Ile Val Gly Ser Cys Gly Gly Gly Val Asp Ser Ser Gln Phe
      245      250      255
Ser Glu Tyr Val Leu Arg Arg Glu Leu Arg Arg Thr Pro Arg Val Pro
      260      265      270
Ser Val Ile Arg Ile Lys Gln Glu Pro Leu Asp
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<210> 3133

<211> 621

<212> DNA

<213> Homo sapiens

<400> 3133

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<210> 3134

<211> 51

<212> PRT

<213> Homo sapiens

<400> 3134

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<210> 3135

<211> 3166

<212> DNA

<213> Homo sapiens

<400> 3135

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<211> 278

<212> PRT

<213> Homo sapiens

<400> 3136

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 <212> DNA
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<210> 3138

<211> 977

<212> PRT

<213> Homo sapiens

<400> 3138

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Thr	Val	Ser	Gly	Met	Ala	Arg	Gln	Asp	Ser	Ser	Ser	Glu	Val	Gly	Glu										
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Asn	Gly	Arg	Ser	Val	Asp	Gln	Gly	Gly	Gly	Gly	Ser	Pro	Arg	Lys	Lys										
										290					295					300					
Val	Ala	Leu	Thr	Glu	Asn	Tyr	Glu	Leu	Val	Gly	Val	Ile	Val	His	Ser										
305											310					315					320				
Gly	Gln	Ala	His	Ala	Gly	His	Tyr	Tyr	Ser	Phe	Ile	Lys	Asp	Arg	Arg										
										325					330					335					
Gly	Cys	Gly	Lys	Gly	Lys	Trp	Tyr	Lys	Phe	Asn	Asp	Thr	Val	Ile	Glu										
										340					345					350					
Glu	Phe	Asp	Leu	Asn	Asp	Glu	Thr	Leu	Glu	Tyr	Glu	Cys	Phe	Gly	Gly										
										355					360					365					
Glu	Tyr	Arg	Pro	Lys	Val	Tyr	Asp	Gln	Thr	Asn	Pro	Tyr	Thr	Asp	Val										
										370					375					380					
Arg	Arg	Arg	Tyr	Trp	Asn	Ala	Tyr	Met	Leu	Phe	Tyr	Gln	Arg	Val	Ser										
385											390					395					400				
Asp	Gln	Asn	Ser	Pro	Val	Leu	Pro	Lys	Lys	Ser	Arg	Val	Ser	Val	Val										
										405					410					415					
Arg	Gln	Glu	Ala	Glu	Asp	Leu	Ser	Leu	Ser	Ala	Pro														


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      450              455              460
Phe Val Glu Lys Met Pro Ala Arg Ile Tyr Gln Met Val Arg Asp Glu
465              470              475              480
Asn Leu Lys Phe Met Lys Asn Arg Asp Val Tyr Ser Ser Asp Tyr Phe
      485              490              495
Ser Phe Val Leu Ser Leu Ala Ser Leu Asn Ala Thr Lys Leu Lys His
      500              505              510
Pro Tyr Tyr Pro Cys Met Ala Lys Val Ser Leu Gln Leu Ala Ile Gln
      515              520              525
Phe Leu Phe Gln Thr Tyr Leu Arg Thr Lys Lys Lys Leu Arg Val Asp
      530              535              540
Thr Glu Glu Trp Ile Ala Thr Ile Glu Ala Leu Leu Ser Lys Ser Phe
545              550              555              560
Asp Ala Cys Gln Trp Leu Val Glu Tyr Phe Ile Ser Ser Glu Gly Arg
565              570              575
Glu Leu Ile Lys Ile Phe Leu Leu Glu Cys Asn Val Arg Glu Val Arg
      580              585              590
Val Ala Val Ala Thr Ile Leu Glu Lys Thr Leu Asp Ser Ala Leu Phe
      595              600              605
Tyr Gln Asp Lys Leu Lys Ser Leu His Gln Leu Leu Glu Val Leu Leu
      610              615              620
Ala Leu Leu Asp Lys Asp Val Pro Glu Asn Cys Lys Asn Cys Ala Gln
625              630              635              640
Tyr Phe Phe Leu Phe Asn Thr Phe Val Gln Lys Gln Gly Ile Arg Ala
      645              650              655
Gly Asp Leu Leu Leu Arg His Ser Ala Leu Arg His Met Ile Ser Phe
      660              665              670
Leu Leu Gly Ala Ser Arg Gln Asn Asn Gln Ile Arg Arg Trp Ser Ser
      675              680              685
Ala Gln Ala Arg Glu Phe Gly Asn Leu His Asn Thr Val Ala Leu Leu
690              695              700
Val Leu His Ser Asp Val Ser Ser Gln Arg Asn Val Ala Pro Gly Ile
705              710              715              720
Phe Lys Gln Arg Pro Pro Ile Ser Ile Ala Pro Ser Ser Pro Leu Leu
      725              730              735
Pro Leu His Glu Glu Val Glu Ala Leu Leu Phe Met Ser Glu Gly Lys
      740              745              750
Pro Tyr Leu Leu Glu Val Met Phe Ala Leu Arg Glu Leu Thr Gly Ser
      755              760              765
Leu Leu Ala Leu Ile Glu Met Val Val Tyr Cys Cys Phe Cys Asn Glu
770              775              780
His Phe Ser Phe Thr Met Leu His Phe Ile Lys Asn Gln Leu Glu Thr
785              790              795              800
Ala Pro Pro His Glu Leu Lys Asn Thr Phe Gln Leu Leu His Glu Ile
      805              810              815
Leu Val Ile Glu Asp Pro Ile Gln Ala Glu Arg Val Lys Phe Val Phe
      820              825              830
Glu Thr Glu Asn Gly Leu Leu Ala Leu Met His His Ser Asn His Val
      835              840              845
Asp Ser Ser Arg Cys Tyr Gln Cys Val Lys Phe Leu Val Thr Leu Ala
850              855              860
Gln Lys Cys Pro Ala Ala Lys Glu Tyr Phe Lys Glu Asn Ser His His
865              870              875              880
Trp Ser Trp Ala Val Gln Trp Leu Gln Lys Lys Met Ser Glu His Tyr

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<400> 3140
Xaa Ile Leu Cys Leu Gly Leu Thr Val Ala Val Asp Ser Tyr Phe Trp
  1             5             10             15
Arg Gln Leu Thr Trp Pro Glu Gly Lys Val Leu Trp Tyr Asn Thr Val
      20             25             30
Leu Asn Lys Ser Ser Asn Trp Gly Thr Ser Pro Leu Leu Trp Tyr Phe
      35             40             45
Tyr Ser Ala Leu Pro Arg Gly Leu Gly Cys Ser Leu Leu Phe Ile Pro
      50             55             60
Leu Gly Leu Val Asp Arg Arg Thr His Ala Pro Thr Val Leu Ala Leu

```

65		70		75		80									
Gly	Phe	Met	Ala	Leu	Tyr	Ser	Leu	Leu	Pro	His	Lys	Glu	Leu	Arg	Phe
		85						90					95		
Ile	Ile	Tyr	Ala	Phe	Pro	Met	Leu	Asn	Ile	Thr	Ala	Ala	Arg	Gly	Cys
		100						105					110		
Ser	Tyr	Leu													
		115													

<210> 3141

<211> 1815

<212> DNA

<213> Homo sapiens

<400> 3141

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180
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240
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300
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360
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420
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480
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540
gctggcaaca actgggccag cggattctcc cagggtgaga aaattcatga ggacattttt
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720
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1020
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1080
cagtcagtgg ccagcgtgag gaagaccacg gtccctggatg tcatgaggcg gctgctgcag
1140
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1200

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 1320
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 1380
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 1680
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 1815

<210> 3142

<211> 451

<212> PRT

<213> Homo sapiens

<400> 3142

Met	Pro	Arg	Glu	Ile	Ile	Thr	Leu	Gln	Leu	Gly	Gln	Cys	Gly	Asn	Gln
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Ile	Gly	Phe	Glu	Phe	Trp	Lys	Gln	Leu	Cys	Ala	Glu	His	Gly	Ile	Ser
		20					25						30		
Pro	Glu	Gly	Ile	Val	Glu	Glu	Phe	Ala	Thr	Glu	Gly	Thr	Asp	Arg	Lys
	35						40					45			
Asp	Val	Phe	Phe	Tyr	Gln	Ala	Asp	Asp	Glu	His	Tyr	Ile	Pro	Arg	Ala
	50					55					60				
Val	Leu	Leu	Asp	Leu	Glu	Pro	Arg	Val	Ile	His	Ser	Ile	Leu	Asn	Ser
65				70					75					80	
Pro	Tyr	Ala	Lys	Leu	Tyr	Asn	Pro	Glu	Asn	Ile	Tyr	Leu	Ser	Glu	His
			85						90					95	
Gly	Gly	Gly	Ala	Gly	Asn	Asn	Trp	Ala	Ser	Gly	Phe	Ser	Gln	Gly	Glu
			100					105						110	
Lys	Ile	His	Glu	Asp	Ile	Phe	Asp	Ile	Ile	Asp	Arg	Glu	Ala	Asp	Gly
		115					120					125			
Ser	Asp	Ser	Leu	Glu	Gly	Phe	Val	Leu	Cys	His	Ser	Ile	Ala	Gly	Gly
	130					135					140				
Thr	Gly	Ser	Gly	Leu	Gly	Ser	Tyr	Leu	Leu	Glu	Arg	Leu	Asn	Asp	Arg
145				150						155				160	
Tyr	Pro	Lys	Lys	Leu	Val	Gln	Thr	Tyr	Ser	Val	Phe	Pro	Asn	Gln	Asp
			165						170					175	
Glu	Met	Ser	Asp	Val	Val	Val	Gln	Pro	Tyr	Asn	Ser	Leu	Leu	Thr	Leu
			180				185						190		
Lys	Arg	Leu	Thr	Gln	Asn	Ala	Asp	Cys	Val	Val	Val	Leu	Asp	Asn	Thr

195	200	205
Ala Leu Asn Arg Ile Ala Thr Asp Arg Leu His Ile Gln Asn Pro Ser		
210	215	220
Phe Ser Gln Ile Asn Gln Leu Val Ser Thr Ile Met Ser Ala Ser Thr		
225	230	235
Thr Thr Leu Arg Tyr Pro Gly Tyr Met Asn Asn Asp Leu Ile Gly Leu		
245	250	255
Ile Ala Ser Leu Ile Pro Thr Pro Arg Leu His Phe Leu Met Thr Gly		
260	265	270
Tyr Thr Pro Leu Thr Thr Asp Gln Ser Val Ala Ser Val Arg Lys Thr		
275	280	285
Thr Val Leu Asp Val Met Arg Arg Leu Leu Gln Pro Lys Asn Val Met		
290	295	300
Val Ser Thr Gly Arg Asp Arg Gln Thr Asn His Cys Tyr Ile Ala Ile		
305	310	315
Leu Asn Ile Ile Gln Gly Glu Val Asp Pro Thr Gln Val His Lys Ser		
325	330	335
Leu Gln Arg Ile Arg Glu Arg Lys Leu Ala Asn Phe Ile Pro Trp Gly		
340	345	350
Pro Ala Ser Ile Gln Val Ala Leu Ser Arg Lys Ser Pro Tyr Leu Pro		
355	360	365
Ser Ala His Arg Val Ser Gly Leu Met Met Ala Asn His Thr Ser Ile		
370	375	380
Ser Ser Leu Phe Glu Arg Thr Cys Arg Gln Tyr Asp Lys Leu Arg Lys		
385	390	395
Arg Glu Ala Phe Leu Glu Gln Phe Arg Lys Glu Asp Met Phe Lys Asp		
405	410	415
Asn Phe Asp Glu Met Asp Thr Ser Arg Glu Ile Val Gln Gln Leu Ile		
420	425	430
Asp Glu Tyr His Ala Ala Thr Arg Pro Asp Tyr Ile Ser Trp Gly Thr		
435	440	445
Gln Glu Gln		
450		

<210> 3143

<211> 356

<212> DNA

<213> Homo sapiens

<400> 3143

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120
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180
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240
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356

<210> 3144

<211> 81
 <212> PRT
 <213> Homo sapiens

<400> 3144
 Met Val Ile Phe Val Ala Ala Thr Ala Ser His Ser Ser Thr Trp Val
 1 5 10 15
 Ser Glu Ala Leu Asn Ser Ala Ser Ala Ser Arg Pro Ala Trp Gly Met
 20 25 30
 Ala Trp Leu Thr Val Lys His Pro His Thr Val Asp Gln Gln Pro Pro
 35 40 45
 Leu Pro Thr Ser Gln Glu Leu Arg Pro Ala Ala Gln Pro Lys Gln Gln
 50 55 60
 Pro His His Ser Gln Thr Pro Pro Gln Arg Val Cys Leu Arg Ala Pro
 65 70 75 80
 Ser

<210> 3145
 <211> 436
 <212> DNA
 <213> Homo sapiens

<400> 3145
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 120
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 180
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 240
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 300
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 420
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 436

<210> 3146
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 3146
 Met Glu Lys Leu Arg Ser Lys Thr Pro Leu Gly Leu His Pro Lys Ser
 1 5 10 15
 Pro Ile Thr Ser Cys Ser Gly Gly Pro Ser Arg Thr Gly Gly Gly Gln
 20 25 30
 Thr Pro Arg Ser Pro Leu His Leu Pro Ser Gly Gly Cys Leu Lys Arg
 35 40 45
 Arg Leu Pro Pro Phe Thr His Leu Pro Ser Val Pro Gly Pro Pro Ser

50		55		60
Leu Val Cys Gln Thr	Leu Gln Pro Pro Ala Ser	Gly His Ser Ala Arg		
65	70	75	80	
Gln Met Thr Ser Gly	Gly Glu Pro His Ile Ser	Thr Gly Ser Arg Arg		
	85	90	95	
Pro Arg Lys Leu Pro	Trp Pro Ala His Pro Arg	Cys Ser Ala Cys Pro		
	100	105	110	
Pro Asn Val Val Ser	Ser Arg Arg Arg Leu Thr	Pro Arg Arg Gly Trp		
	115	120	125	
Gly Thr Ser				
130				

<210> 3147

<211> 3106

<212> DNA

<213> Homo sapiens

<400> 3147

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 120
 gccgagcgcg aggtgtcggg gccaccttc agctgggagg agattcagaa gcataacctg
 180
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 240
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 300
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 720
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 780
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 1080

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<210> 3148

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3148

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Ser	Val	Pro	Thr	Phe	Ser	Trp	Glu	Glu	Ile	Gln	Lys	His	Asn	Leu	Arg
			20				25					30			
Thr	Asp	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Thr	Lys
	35					40					45				
Trp	Ser	Ile	Gln	His	Pro	Gly	Gly	Gln	Arg	Val	Ile	Gly	His	Tyr	Ala
50				55						60					
Gly	Glu	Asp	Ala	Thr	Asp	Ala	Phe	Arg	Ala	Phe	His	Pro	Asp	Leu	Glu
65				70					75					80	
Phe	Val	Gly	Lys	Phe	Leu	Lys	Pro	Leu	Leu	Ile	Gly	Glu	Leu	Ala	Pro
			85					90					95		
Glu	Glu	Pro	Ser	Gln	Asp	His	Gly	Lys	Asn	Ser	Lys	Ile	Thr	Glu	Asp
		100					105					110			
Phe	Arg	Ala	Leu	Arg	Lys	Thr	Ala	Glu	Asp	Met	Asn	Leu	Phe	Lys	Thr
	115					120					125				
Asn	His	Val	Phe	Phe	Leu	Leu	Leu	Leu	Ala	His	Ile	Ile	Ala	Leu	Glu
130					135					140					
Ser	Ile	Ala	Trp	Phe	Thr	Val	Phe	Tyr	Phe	Gly	Asn	Gly	Trp	Ile	Pro
145				150					155					160	
Thr	Leu	Ile	Thr	Ala	Phe	Val	Leu	Ala	Thr	Ser	Gln	Ala	Gln	Ala	Gly
			165					170					175		
Trp	Leu	Gln	His	Asp	Tyr	Gly	His	Leu	Ser	Val	Tyr	Arg	Lys	Pro	Lys
	180					185					190				
Trp	Asn	His	Leu	Val	His	Lys	Phe	Val	Ile	Gly	His	Leu	Lys	Gly	Ala
	195					200				205					
Ser	Ala	Asn	Trp	Trp	Asn	His	Arg	His	Phe	Gln	His	His	Ala	Lys	Pro
210					215					220					
Asn	Ile	Phe	His	Lys	Asp	Pro	Asp	Val	Asn	Met	Leu	His	Val	Phe	Val
225				230					235					240	
Leu	Gly	Glu	Trp	Gln	Pro	Ile	Glu	Tyr	Gly	Lys	Lys	Lys	Leu	Lys	Tyr
			245					250					255		
Leu	Pro	Tyr	Asn	His	Gln	His	Glu	Tyr	Phe	Phe	Leu	Ile	Gly	Pro	Pro

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Leu Leu Ile Pro Met Tyr Phe Gln Tyr Gln Ile Ile Met Thr Met Ile
                275                280                285
Val His Lys Asn Trp Val Asp Leu Ala Trp Ala Val Ser Tyr Tyr Ile
                290                295                300
Arg Phe Phe Ile Thr Tyr Ile Pro Phe Tyr Gly Ile Leu Gly Ala Leu
305                310                315                320
Leu Phe Leu Asn Phe Ile Arg Phe Leu Glu Ser His Trp Phe Val Trp
                325                330                335
Val Thr Gln Met Asn His Ile Val Met Glu Ile Asp Gln Glu Ala Tyr
                340                345                350
Arg Asp Trp Phe Ser Ser Gln Leu Thr Ala Thr Cys Asn Val Glu Gln
                355                360                365
Ser Phe Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
370                375                380
His His Leu Phe Pro Thr Met Pro Arg His Asn Leu His Lys Ile Ala
385                390                395                400
Pro Leu Val Lys Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Glu
                405                410                415
Lys Pro Leu Leu Arg Ala Leu Leu Asp Ile Ile Arg Ser Leu Lys Lys
                420                425                430
Ser Gly Lys Leu Trp Leu Asp Ala Tyr Leu His Lys
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<210> 3149

<211> 1006

<212> DNA

<213> Homo sapiens

<400> 3149

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gctgccact ccgcgtctga ggaggtgcgg gagctcgagg gcaagaccgg cttctcatcg
180
gatcagatcg agcagctcca tcggagattt aagcagctga gtggagatca gcctaccatt
240
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gttcgtgcct tcttcgacaa caggaacctg cgcaaggga ctagtggcct ggctgatgag
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420
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660
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720

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acgtccgctt ccttaacatg gaaaccatgg ccctctgcca ctgacccacc gccacctccg
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 840
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 1006

<210> 3150

<211> 201

<212> PRT

<213> Homo sapiens

<400> 3150

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		20					25					30			
Ala	Pro	Ala	Ala	Gly	Thr	Met	Gly	Ala	Ala	His	Ser	Ala	Ser	Glu	Glu
		35				40					45				
Val	Arg	Glu	Leu	Glu	Gly	Lys	Thr	Gly	Phe	Ser	Ser	Asp	Gln	Ile	Glu
	50					55				60					
Gln	Leu	His	Arg	Arg	Phe	Lys	Gln	Leu	Ser	Gly	Asp	Gln	Pro	Thr	Ile
65					70					75				80	
Arg	Lys	Glu	Asn	Phe	Asn	Asn	Val	Pro	Asp	Leu	Glu	Leu	Asn	Pro	Ile
			85						90				95		
Arg	Ser	Lys	Ile	Val	Arg	Ala	Phe	Phe	Asp	Asn	Arg	Asn	Leu	Arg	Lys
			100					105					110		
Gly	Pro	Ser	Gly	Leu	Ala	Asp	Glu	Ile	Asn	Phe	Glu	Asp	Phe	Leu	Thr
		115				120						125			
Ile	Met	Ser	Tyr	Phe	Arg	Pro	Ile	Asp	Thr	Thr	Met	Asp	Glu	Glu	Gln
	130					135					140				
Val	Glu	Leu	Ser	Arg	Lys	Glu	Lys	Leu	Arg	Phe	Leu	Phe	His	Met	Tyr
145					150					155				160	
Asp	Ser	Asp	Ser	Asp	Gly	Arg	Ile	Thr	Leu	Glu	Glu	Tyr	Arg	Asn	Val
			165					170					175		
Lys	Trp	Ser	Arg	Ser	Cys	Cys	Arg	Glu	Thr	Leu	Thr	Ser	Arg	Arg	Ser
			180					185					190		
Pro	Leu	Ala	Pro	Ser	Pro	Thr	Gly	Pro							
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<210> 3151

<211> 2079

<212> DNA

<213> Homo sapiens

<400> 3151

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cctgggcctc tcggtggagc agggacccga accggtgcc atccagtcg gtgccatctg
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240
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360
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420
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480
ccgcagagcg agcactaccg cagcctgcag gccatggtgg cccacgagct gagcaaccgg
540
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600
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660
gacgcacgca cctccgcact ctgcgccgac tcctacaacg cctcgtggc cgcctaccac
720
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780
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1140
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1680
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1740

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 1860
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 1920
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 1980
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 2040
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 2079

<210> 3152

<211> 214

<212> PRT

<213> Homo sapiens

<400> 3152

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Phe	Lys	Gln	Cys	Leu	Asp	Glu	Lys	Glu	Glu	Val	Leu	Leu	Asp	Pro	Tyr
			20					25					30		
Ile	Ala	Ser	Trp	Lys	Gly	Leu	Val	Arg	Phe	Leu	Asn	Ser	Leu	Gly	Thr
			35				40					45			
Ile	Phe	Ser	Phe	Ile	Ser	Lys	Asp	Val	Val	Ser	Lys	Leu	Arg	Ile	Met
	50					55					60				
Glu	Arg	Leu	Arg	Gly	Gly	Pro	Gln	Ser	Glu	His	Tyr	Arg	Ser	Leu	Gln
65					70					75				80	
Ala	Met	Val	Ala	His	Glu	Leu	Ser	Asn	Arg	Leu	Val	Asp	Leu	Glu	Gly
				85					90					95	
Arg	Ser	His	His	Pro	Glu	Ser	Gly	Cys	Arg	Thr	Val	Leu	Arg	Leu	His
			100					105					110		
Arg	Ala	Leu	His	Trp	Leu	Gln	Leu	Phe	Leu	Glu	Gly	Leu	Arg	Thr	Ser
			115				120					125			
Pro	Glu	Asp	Ala	Arg	Thr	Ser	Ala	Leu	Cys	Ala	Asp	Ser	Tyr	Asn	Ala
			130				135					140			
Ser	Leu	Ala	Ala	Tyr	His	Pro	Trp	Val	Val	Arg	Arg	Ala	Val	Thr	Val
145					150					155				160	
Ala	Phe	Cys	Thr	Leu	Pro	Thr	Arg	Glu	Val	Phe	Leu	Glu	Ala	Met	Asn
			165						170					175	
Val	Gly	Pro	Pro	Glu	Gln	Ala	Val	Gln	Met	Leu	Gly	Glu	Ala	Leu	Pro
			180					185					190		
Phe	Ile	Gln	Arg	Val	Tyr	Asn	Val	Ser	Gln	Lys	Leu	Tyr	Ala	Glu	His
			195				200						205		
Ser	Leu	Leu	Asp	Leu	Pro										
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<210> 3153

<211> 1498

<212> DNA

<213> Homo sapiens

<400> 3153

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180
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240
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300
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360
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420
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480
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540
tgcgtagggg ggggccccgg gctgcccgtg gagcgctgct gcgcgagggg ccggggaagc
600
ctgacttgaa cagacacagc cccctgggct gccttgcccg ttgggcacct gagcctctgt
660
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720
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1498

<210> 3154

<211> 65

<212> PRT

<213> Homo sapiens

<400> 3154

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Cys Pro Gly Ala Gly Ile Ala Ser Arg Arg Pro Arg Gln Gln Gly Asp
          20          25          30
Ser Gly His Arg Trp Gly Ile Thr Leu Pro Thr Arg Asp Ser Arg His
          35          40          45
Gly Leu Leu Gly Leu Gln Ala Pro Trp Gly Ser Arg Gly Lys Pro Gln
 50          55          60
Gly
65

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<210> 3155

<211> 551

<212> DNA

<213> Homo sapiens

<400> 3155

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120
actaactgtg actcttcttc agaaggactg gaaaaggaca cagcaacaca gagaagtgac
180
cagacttgcc tagaaccatc atgttcattgt tcttctgaaa atcaggaatg ccagactgct
240
gccagccctg gggaaattct ggaaattttg aagaaagggg aggcatttgt tttagatatt
300
gacttggatt ttttttcagt caagaatccc ttcaaaaaaa tgttcactca ggaagagtac
360
aaaatcttac aagagctgta ccaatttaag aaacctggca ccaacctaac agaggaagat
420
ttggtagata ttgttgatac tcgaattcat caattagagg atttagaagc cactttcgct
480
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<210> 3156

<211> 178

<212> PRT

<213> Homo sapiens

<400> 3156

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Val Ser Ser Ala Lys Lys Pro Lys Leu Ala Leu Glu Asp Ser Glu Asn
          20          25          30
Thr Ala Ser Thr Asn Cys Asp Ser Ser Ser Glu Gly Leu Glu Lys Asp
          35          40          45
Thr Ala Thr Gln Arg Ser Asp Gln Thr Cys Leu Glu Pro Ser Cys Ser

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50		55		60	
Cys Ser Ser Glu Asn Gln Glu Cys Gln Thr Ala Ala Ser Pro Gly Glu					
65		70		75	80
Ile Leu Glu Ile Leu Lys Lys Gly Lys Ala Phe Val Leu Asp Ile Asp					
	85		90		95
Leu Asp Phe Phe Ser Val Lys Asn Pro Phe Lys Lys Met Phe Thr Gln					
	100		105		110
Glu Glu Tyr Lys Ile Leu Gln Glu Leu Tyr Gln Phe Lys Lys Pro Gly					
	115		120		125
Thr Asn Leu Thr Glu Glu Asp Leu Val Asp Ile Val Asp Thr Arg Ile					
	130		135		140
His Gln Leu Glu Asp Leu Glu Ala Thr Phe Ala Asp Leu Cys Asp Gly					
145		150		155	160
Asp Asp Glu Glu Thr Val Gln Gly Trp Ala Ser Asn Pro Gly Met Glu					
	165		170		175
Ser Leu					

<210> 3157

<211> 903

<212> DNA

<213> Homo sapiens

<400> 3157

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240
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420
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480
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720
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780
cgctggcgct cccccagggg ccggagccgg ggccgcccc gactggggg cgggggtggtt
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900

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cac
903

<210> 3158
<211> 92
<212> PRT
<213> Homo sapiens

<400> 3158
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20 25 30
Thr Glu Pro Pro Thr Pro Glu Pro Gly Pro Lys Thr Pro Pro Arg Thr
35 40 45
Met Gln Glu Ser Pro Leu Gly Leu Gln Val Lys Glu Glu Ser Glu Val
50 55 60
Thr Glu Asp Ser Asp Phe Leu Glu Ser Gly Pro Leu Ala Ala Thr Gln
65 70 75 80
Glu Ser Val Pro Thr Leu Leu Pro Glu Glu Ala Gln
85 90

<210> 3159
<211> 2408
<212> DNA
<213> Homo sapiens

<400> 3159
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120
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360
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720
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780

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1020
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1080
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2040
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aacaagtct ataaaataaa acatgggaca ttagctttgg gaaaagtaat gaaaatataa
2160
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2220
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2280
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tgccatta
2408

<210> 3160
<211> 431
<212> PRT
<213> Homo sapiens

<400> 3160

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			20					25					30		
Glu	Lys	Leu	Leu	Glu	Lys	Tyr	Met	Asp	Glu	Asp	Gly	Glu	Trp	Trp	Ile
		35					40					45			
Ala	Lys	Gln	Arg	Gly	Lys	Arg	Ala	Ile	Thr	Asp	Asn	Asp	Met	Gln	Ser
	50					55					60				
Ile	Leu	Asp	Leu	His	Asn	Lys	Leu	Arg	Ser	Gln	Val	Tyr	Pro	Thr	Ala
65					70					75				80	
Ser	Asn	Met	Glu	Tyr	Met	Thr	Trp	Asp	Val	Glu	Leu	Glu	Arg	Ser	Ala
				85					90					95	
Glu	Ser	Trp	Ala	Glu	Ser	Cys	Leu	Trp	Glu	His	Gly	Pro	Ala	Ser	Leu
			100					105					110		
Leu	Pro	Ser	Ile	Gly	Gln	Asn	Leu	Gly	Ala	His	Trp	Gly	Arg	Tyr	Arg
			115				120					125			
Pro	Pro	Thr	Phe	His	Val	Gln	Ser	Trp	Tyr	Asp	Glu	Val	Lys	Asp	Phe
	130					135					140				
Ser	Tyr	Pro	Tyr	Glu	His	Glu	Cys	Asn	Pro	Tyr	Cys	Pro	Phe	Arg	Cys
145						150				155				160	
Ser	Gly	Pro	Val	Cys	Thr	His	Tyr	Thr	Gln	Val	Val	Trp	Ala	Thr	Ser
				165					170					175	
Asn	Arg	Ile	Gly	Cys	Ala	Ile	Asn	Leu	Cys	His	Asn	Met	Asn	Ile	Trp
			180					185					190		
Gly	Gln	Ile	Trp	Pro	Lys	Ala	Val	Tyr	Leu	Val	Cys	Asn	Tyr	Ser	Pro
		195					200					205			
Lys	Gly	Asn	Trp	Trp	Gly	His	Ala	Pro	Tyr	Lys	His	Gly	Arg	Pro	Cys
	210					215					220				
Ser	Ala	Cys	Pro	Pro	Ser	Phe	Gly	Gly	Gly	Cys	Arg	Glu	Asn	Leu	Cys
225					230					235				240	
Tyr	Lys	Glu	Gly	Ser	Asp	Arg	Tyr	Tyr	Pro	Pro	Arg	Glu	Glu	Glu	Thr
				245					250					255	
Asn	Glu	Ile	Glu	Arg	Gln	Gln	Ser	Gln	Val	His	Asp	Thr	His	Val	Arg
			260					265					270		
Thr	Arg	Ser	Asp	Asp	Ser	Ser	Arg	Asn	Glu	Val	Ile	Ser	Ala	Gln	Gln
			275				280					285			
Met	Ser	Gln	Ile	Val	Ser	Cys	Glu	Val	Arg	Leu	Arg	Asp	Gln	Cys	Lys
	290					295					300				
Gly	Thr	Thr	Cys	Asn	Arg	Tyr	Glu	Cys	Pro	Ala	Gly	Cys	Leu	Asp	Ser
305					310					315				320	
Lys	Ala	Lys	Val	Ile	Gly	Ser	Val	His	Tyr	Glu	Met	Gln	Ser	Ser	Ile
				325					330					335	
Cys	Arg	Ala	Ala	Ile	His	Tyr	Gly	Ile	Ile	Asp	Asn	Asp	Gly	Gly	Trp
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<400> 3161
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120
ctcaacttgc taaaaatcaa gcatggcgat ttgttggtcc tgtttccctc gagccttgct
180
gggcccctcat ctgaaatgga gacgtcagtt ccaccgggct tcaaagtctt tggcgctccc
240
aacgtggttg aggatgagat tgatcagtac ctcagcaaac aggacgggaa gatttacaga
300
agccgagacc cacagctatg ccgccacggc cctttgggga aatgcgtgca ctgcgtccct
360
ctagagccat tcgatgagga ctatctaaac catctcgagc ctcccgtgaa gcacatgtcc
420
ttccacgcct acatccggaa gctgactgga ggggctgaca aggggaagtt tgttgccctg
480
gagaacatca gctgcaagat taagtcaggg tgcgaggggc acctcccgtg gccgaatggc
540
atctgtacta agtgccagcc gagcgccatc acgctgaaca gacagaagta caggcatgtg
600
gacaatatca tgtttgagaa tcacaccgtc gctgaccgct ttcttgactt ctggagaaag
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acagggaacc agcatttttg gtacttatac ggacggtaca cggagcacia agacattccc
720
cttggcatca gggctgaagt ggctgcgatt tatgagccac ctcagattgg tacacagaac
780
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960
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1020
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1080
gggtaccagg tgtccaatca gtgtatggca ctggtcctg atgagtgtt gctgccatgc
1140

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1197

<210> 3162

<211> 386

<212> PRT

<213> Homo sapiens

<400> 3162

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			20					25					30		
Ile	Thr	Ala	Ser	Ser	Asn	Lys	Ser	Leu	Asn	Leu	Leu	Lys	Ile	Lys	His
		35					40					45			
Gly	Asp	Leu	Leu	Phe	Leu	Phe	Pro	Ser	Ser	Leu	Ala	Gly	Pro	Ser	Ser
	50					55					60				
Glu	Met	Glu	Thr	Ser	Val	Pro	Pro	Gly	Phe	Lys	Val	Phe	Gly	Ala	Pro
65					70					75				80	
Asn	Val	Val	Glu	Asp	Glu	Ile	Asp	Gln	Tyr	Leu	Ser	Lys	Gln	Asp	Gly
				85					90					95	
Lys	Ile	Tyr	Arg	Ser	Arg	Asp	Pro	Gln	Leu	Cys	Arg	His	Gly	Pro	Leu
			100					105					110		
Gly	Lys	Cys	Val	His	Cys	Val	Pro	Leu	Glu	Pro	Phe	Asp	Glu	Asp	Tyr
		115					120					125			
Leu	Asn	His	Leu	Glu	Pro	Pro	Val	Lys	His	Met	Ser	Phe	His	Ala	Tyr
	130						135					140			
Ile	Arg	Lys	Leu	Thr	Gly	Gly	Ala	Asp	Lys	Gly	Lys	Phe	Val	Ala	Leu
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Glu	Asn	Ile	Ser	Cys	Lys	Ile	Lys	Ser	Gly	Cys	Glu	Gly	His	Leu	Pro
				165					170					175	
Trp	Pro	Asn	Gly	Ile	Cys	Thr	Lys	Cys	Gln	Pro	Ser	Ala	Ile	Thr	Leu
			180					185					190		
Asn	Arg	Gln	Lys	Tyr	Arg	His	Val	Asp	Asn	Ile	Met	Phe	Glu	Asn	His
		195					200					205			
Thr	Val	Ala	Asp	Arg	Phe	Leu	Asp	Phe	Trp	Arg	Lys	Thr	Gly	Asn	Gln
	210					215					220				
His	Phe	Gly	Tyr	Leu	Tyr	Gly	Arg	Tyr	Thr	Glu	His	Lys	Asp	Ile	Pro
225					230					235				240	
Leu	Gly	Ile	Arg	Ala	Glu	Val	Ala	Ala	Ile	Tyr	Glu	Pro	Pro	Gln	Ile
				245					250					255	
Gly	Thr	Gln	Asn	Ser	Leu	Glu	Leu	Leu	Glu	Asp	Pro	Lys	Ala	Glu	Val
			260					265					270		
Val	Asp	Glu	Ile	Ala	Ala	Lys	Leu	Gly	Leu	Arg	Lys	Val	Gly	Trp	Ile
		275					280					285			
Phe	Thr	Asp	Leu	Val	Ser	Glu	Asp	Thr	Arg	Lys	Gly	Thr	Val	Arg	Tyr
	290					295					300				
Ser	Arg	Asn	Lys	Asp	Thr	Tyr	Phe	Leu	Ser	Ser	Glu	Glu	Cys	Ile	Thr
305					310					315				320	
Ala	Gly	Asp	Phe	Gln	Asn	Lys	His	Pro	Asn	Met	Cys	Arg	Leu	Ser	Pro
				325					330					335	
Asp	Gly	His	Phe	Gly	Ser	Lys	Phe	Val	Thr	Ala	Val	Ala	Thr	Gly	Gly
		340						345				350			
Pro	Asp	Asn	Gln	Val	His	Phe	Glu	Gly	Tyr	Gln	Val	Ser	Asn	Gln	Cys

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Val Cys
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<210> 3163
<211> 1075
<212> DNA
<213> Homo sapiens
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120					
tgggggctac	cagtggaccc	actgactcct	ggacatcagg	atgctctgcc	atggcaaagg
180					
tgttatcatc	catgttcttc	gtcttcagtt	cctcctcggc	aggcctgcgc	ctcaccggct
240					
tcatgcagct	cttcagctgc	cntggcctca	gcctccacgg	gaccttgga	ctcgggctgt
300					
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360					
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420					
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480					
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540					
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600					
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660					
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720					
gcacgcgtac	caaccgcgc	agcaccggcg	ggcggccccc	aggcaccac	accccggcac
780					
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840					
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900					
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960					
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1075					

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<210> 3164
<211> 94
<212> PRT
<213> Homo sapiens
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<400> 3164

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His Gln Asp Ala Leu Pro Trp Gln Arg Cys Tyr His Pro Cys Ser Ser
      20           25           30
Ser Ser Val Pro Pro Arg Gln Ala Cys Ala Ser Pro Ala Ser Cys Ser
      35           40           45
Ser Ser Ala Ala Xaa Ala Ser Ala Ser Thr Gly Pro Trp His Ser Gly
      50           55           60
Cys Gly Ser Ser Cys Gly Ser Cys Cys Cys Trp Gly Ser Pro Ser Ala
65           70           75           80
Ser Val Gly Val Gly Ala Gly Ala Ile Arg Ser Arg Thr Val
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<210> 3165

<211> 2413

<212> DNA

<213> Homo sapiens

<400> 3165

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120
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180
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240
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300
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420
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600
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660
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720
cagaaaccag agcctcagga tgatgggaaa agtacggagt cagatgtaaa ggccgatgga
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900
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1020

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1200
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1260
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1440
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1500
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2280
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2400
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<210> 3166

<211> 717

<212> PRT

<213> Homo sapiens

<400> 3166

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		20						25					30		
Ser	Leu	Pro	Leu	Ser	Ala	His	Gly	Ile	Val	Val	Ala	Trp	Leu	Ser	Arg
		35					40					45			
Ala	Glu	Trp	Asp	Gln	Val	Thr	Val	Tyr	Leu	Phe	Cys	Asp	Asp	His	Lys
	50					55					60				
Leu	Gln	Arg	Tyr	Ala	Leu	Asn	Arg	Ile	Thr	Val	Trp	Arg	Ser	Arg	Ser
65					70					75					80
Gly	Asn	Glu	Leu	Pro	Leu	Ala	Val	Ala	Ser	Thr	Ala	Asp	Leu	Ile	Arg
				85					90					95	
Cys	Lys	Leu	Leu	Asp	Val	Thr	Gly	Gly	Leu	Gly	Thr	Asp	Glu	Leu	Arg
			100					105					110		
Leu	Leu	Tyr	Gly	Met	Ala	Leu	Val	Arg	Phe	Val	Asn	Leu	Ile	Ser	Glu
		115					120						125		
Arg	Lys	Thr	Lys	Phe	Ala	Lys	Val	Pro	Leu	Lys	Cys	Leu	Ala	Gln	Glu
		130				135					140				
Val	Asn	Ile	Pro	Asp	Trp	Ile	Val	Asp	Leu	Arg	His	Glu	Leu	Thr	His
145					150					155					160
Lys	Lys	Met	Pro	His	Ile	Asn	Asp	Cys	Arg	Arg	Gly	Cys	Tyr	Phe	Val
				165					170					175	
Leu	Asp	Trp	Leu	Gln	Lys	Thr	Tyr	Trp	Cys	Arg	Gln	Leu	Glu	Asn	Ser
			180					185					190		
Leu	Arg	Glu	Thr	Trp	Glu	Leu	Glu	Glu	Phe	Arg	Glu	Gly	Ile	Glu	Glu
		195					200					205			
Glu	Asp	Gln	Glu	Glu	Asp	Lys	Asn	Ile	Val	Val	Asp	Asp	Ile	Thr	Glu
		210				215					220				
Gln	Lys	Pro	Glu	Pro	Gln	Asp	Asp	Gly	Lys	Ser	Thr	Glu	Ser	Asp	Val
225					230					235					240
Lys	Ala	Asp	Gly	Asp	Ser	Lys	Gly	Ser	Glu	Glu	Val	Asp	Ser	His	Cys
				245					250					255	
Lys	Lys	Ala	Leu	Ser	His	Lys	Glu	Leu	Tyr	Glu	Arg	Ala	Arg	Glu	Leu
			260					265					270		
Leu	Val	Ser	Tyr	Glu	Glu	Glu	Gln	Phe	Thr	Val	Leu	Glu	Lys	Phe	Arg
		275					280					285			
Tyr	Leu	Pro	Lys	Ala	Ile	Lys	Ala	Trp	Asn	Asn	Pro	Ser	Pro	Arg	Val
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Glu	Cys	Val	Leu	Ala	Glu	Leu	Lys	Gly	Val	Thr	Cys	Glu	Asn	Arg	Glu
305					310					315					320
Ala	Val	Leu	Asp	Ala	Phe	Leu	Asp	Asp	Gly	Phe	Leu	Val	Pro	Thr	Phe
				325					330					335	
Glu	Gln	Leu	Ala	Ala	Leu	Gln	Ile	Glu	Tyr	Glu	Glu	Asn	Val	Asp	Leu
			340					345					350		
Asn	Asp	Val	Leu	Val	Pro	Lys	Pro	Phe	Ser	Gln	Phe	Trp	Gln	Pro	Leu
		355					360					365			
Leu	Arg	Gly	Leu	His	Ser	Gln	Asn	Phe	Thr	Gln	Ala	Leu	Leu	Glu	Arg
		370				375					380				
Met	Leu	Ser	Glu	Leu	Pro	Ala	Leu	Gly	Ile	Ser	Gly	Ile	Arg	Pro	Thr
385					390					395					400
Tyr	Ile	Leu	Arg	Trp	Thr	Val	Glu	Leu	Ile	Val	Ala	Asn	Thr	Lys	Thr
				405					410					415	
Gly	Arg	Asn	Ala	Arg	Arg	Phe	Ser	Ala	Gly	Gln	Trp	Glu	Ala	Arg	Arg

			420					425					430			
Gly	Trp	Arg	Leu	Phe	Asn	Cys	Ser	Ala	Ser	Leu	Asp	Trp	Pro	Arg	Met	
			435					440					445			
Val	Glu	Ser	Cys	Leu	Gly	Ser	Pro	Cys	Trp	Ala	Ser	Pro	Gln	Leu	Leu	
			450					455					460			
Arg	Ile	Ile	Phe	Lys	Ala	Met	Gly	Gln	Gly	Leu	Pro	Asp	Glu	Glu	Gln	
			465					470					475			
Glu	Lys	Leu	Leu	Arg	Ile	Cys	Ser	Ile	Tyr	Thr	Gln	Ser	Gly	Glu	Asn	
			485					490					495			
Ser	Leu	Val	Gln	Glu	Gly	Ser	Glu	Ala	Ser	Pro	Ile	Gly	Lys	Ser	Pro	
			500					505					510			
Tyr	Thr	Leu	Asp	Ser	Leu	Tyr	Trp	Ser	Val	Lys	Pro	Ala	Ser	Ser	Ser	
			515					520					525			
Phe	Gly	Ser	Glu	Ala	Lys	Ala	Gln	Gln	Gln	Glu	Glu	Gln	Gly	Ser	Val	
			530					535					540			
Asn	Asp	Val	Lys	Glu	Glu	Glu	Lys	Glu	Glu	Lys	Glu	Val	Leu	Pro	Asp	
			545					550					555			
Gln	Val	Glu	Glu	Glu	Glu	Glu	Asn	Asp	Asp	Gln	Glu	Glu	Glu	Glu	Glu	
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Asp	Glu	Asp	Asp	Glu	Asp	Asp	Glu	Glu	Glu	Asp	Arg	Met	Glu	Val	Gly	
			580					585					590			
Pro	Phe	Ser	Thr	Gly	Gln	Glu	Ser	Pro	Thr	Ala	Glu	Asn	Ala	Arg	Leu	
			595					600					605			
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Ser	Glu	Asp	Val	Arg	Trp	Asp	Thr	Phe	Pro	Leu	Gly	Arg	Met	Pro	Gly	
			625					630					635			
Gln	Thr	Glu	Asp	Pro	Ala	Glu	Leu	Met	Leu	Glu	Asn	Tyr	Asp	Thr	Met	
			645					650					655			
Tyr	Leu	Leu	Asp	Gln	Pro	Val	Leu	Glu	Gln	Arg	Leu	Glu	Pro	Ser	Thr	
			660					665					670			
Cys	Lys	Thr	Asp	Thr	Leu	Gly	Leu	Ser	Cys	Gly	Val	Gly	Ser	Gly	Asn	
			675					680					685			
Cys	Ser	Asn	Ser	Ser	Ser	Ser	Asn	Phe	Glu	Gly	Leu	Leu	Trp	Ser	Gln	
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Gly	Gln	Leu	His	Gly	Leu	Lys	Thr	Gly	Leu	Gln	Leu	Phe				
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<210> 3167

<211> 2730

<212> DNA

<213> Homo sapiens

<400> 3167

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120

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<210> 3172
<211> 228
<212> PRT
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<213> Homo sapiens

<400> 3172

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          20           25           30
Gly Thr Ser Asp Ala Glu Thr Ser Ala Leu His Ile Val Val Gly Asp
      35           40           45
Ser Leu Ala Met Asp Val Ser Ser Val His His Asn Ser Thr Leu Leu
      50           55           60
Arg Tyr Ser Val Ser Leu Leu Gly Tyr Gly Phe Tyr Gly Asp Ile Ile
65           70           75           80
Lys Asp Ser Glu Lys Lys Arg Trp Leu Gly Leu Ala Arg Tyr Asp Phe
          85           90           95
Ser Gly Leu Lys Thr Phe Leu Ser His His Cys Tyr Glu Gly Thr Val
          100          105          110
Ser Phe Leu Pro Ala Gln His Thr Val Gly Ser Pro Arg Asp Arg Lys
          115          120          125
Pro Cys Arg Ala Gly Cys Phe Val Cys Arg Gln Ser Lys Gln Gln Leu
          130          135          140
Glu Glu Glu Gln Lys Lys Ala Leu Tyr Gly Leu Glu Ala Ala Glu Asp
145          150          155          160
Val Glu Glu Trp Gln Val Val Cys Gly Lys Phe Leu Ala Ile Asn Ala
          165          170          175
Thr Asn Met Ser Cys Ala Cys Arg Arg Ser Pro Arg Gly Leu Ser Pro
          180          185          190
Ala Ala His Leu Gly Asp Gly Ser Ser Asp Leu Ile Leu Ile Arg Lys
          195          200          205
Cys Ser Arg Phe Asn Phe Leu Arg Phe Leu Ile Trp His Glu Val Cys
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Lys Lys Pro Leu
225

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<210> 3173

<211> 573

<212> DNA

<213> Homo sapiens

<400> 3173

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120
tatagtgaag gtttgaaggt tgaagtgact cattgtggaa caatgagacg gaaataccgt
180
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240
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300
aagtaccgcg accttccttg tctgcaagtc gggcaggaac agaaacacac ctacctgcca
360
ctagaagtct gtaatattgt ggcagggcaa cgatgtatca agaagctaac agacaatcag
420

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acttccacta tgatcaaggc aacagcaaga tctgcaccag atagacaaga ggaaattagc
 480
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 573

<210> 3174
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 3174
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 Gln Thr Phe Pro Leu Gln Leu Glu Asn Gly Gln Thr Val Glu Arg Thr
 35 40 45
 Val Ala Gln Tyr Phe Arg Glu Lys Tyr Thr Leu Gln Leu Lys Tyr Pro
 50 55 60
 His Leu Pro Cys Leu Gln Val Gly Gln Glu Gln Lys His Thr Tyr Leu
 65 70 75 80
 Pro Leu Glu Val Cys Asn Ile Val Ala Gly Gln Arg Cys Ile Lys Lys
 85 90 95
 Leu Thr Asp Asn Gln Thr Ser Thr Met Ile Lys Ala Thr Ala Arg Ser
 100 105 110
 Ala Pro Asp Arg Gln Glu Glu Ile Ser Arg Leu Val Arg Ser Ala Asn
 115 120 125
 Tyr Glu Thr Asp Pro Phe Val Gln Glu Phe Gln Phe Lys Val Arg Asp
 130 135 140
 Glu Met Ala His Val Thr Gly Arg
 145 150

<210> 3175
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 3175
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 120
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 180
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 240
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 300
 cggggcaagg ctgcggggaa tgagtatcag ccgagcaaca tcaaacgcaa gaacaagcac
 360
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 420

aagggccgca agtcgctgag ccattgagga tcgcgacgca gtcggcggga ccctcatgga
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 720
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 780
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 948

<210> 3176

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3176

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Ala	Leu	Leu	Gly	Gly	Arg	Trp	Leu	Gln	Pro	Arg	Ala	Trp	Leu	Gly	Phe
			20					25					30		
Pro	Asp	Ala	Trp	Gly	Leu	Pro	Thr	Pro	Gln	Gln	Ala	Arg	Gly	Lys	Ala
		35					40					45			
Arg	Gly	Asn	Glu	Tyr	Gln	Pro	Ser	Asn	Ile	Lys	Arg	Lys	Asn	Lys	His
	50					55					60				
Gly	Trp	Val	Arg	Arg	Leu	Ser	Thr	Pro	Ala	Gly	Val	Gln	Val	Ile	Leu
65					70					75				80	
Arg	Arg	Met	Leu	Lys	Gly	Arg	Lys	Ser	Leu	Ser	His				
			85						90						

<210> 3177

<211> 1857

<212> DNA

<213> Homo sapiens

<400> 3177

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 120
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 300

cagctggtag ccagctactg cccagaggtg gtggaggacg gggtaggcaga ccaaacagat
360
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420
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480
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540
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600
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1380
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1857

<210> 3178

<211> 273
 <212> PRT
 <213> Homo sapiens

<400> 3178

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      20           25           30
Glu Gln Val Gln Phe Gln Pro Asn Thr Val Asn Thr Leu Ala Cys Pro
      35           40           45
Leu Leu Ser Asn Leu Ala Thr Arg Leu Trp Leu Arg Asn Gly Ala Pro
      50           55           60
Val Asn Ala Ser Ala Ser Cys His Val Leu Pro Thr Gly Asp Leu Leu
      65           70           75           80
Leu Val Gly Thr Gln Gln Leu Gly Glu Phe Gln Cys Trp Ser Leu Glu
      85           90           95
Glu Gly Phe Gln Gln Leu Val Ala Ser Tyr Cys Pro Glu Val Val Glu
      100          105          110
Asp Gly Val Ala Asp Gln Thr Asp Glu Gly Gly Ser Val Pro Val Ile
      115          120          125
Ile Ser Thr Ser Arg Val Ser Ala Pro Ala Gly Gly Lys Ala Ser Trp
      130          135          140
Gly Ala Asp Arg Ser Tyr Trp Lys Glu Phe Leu Val Met Cys Thr Leu
      145          150          155          160
Phe Val Leu Ala Val Leu Leu Pro Val Leu Phe Leu Leu Tyr Arg His
      165          170          175
Arg Asn Ser Met Lys Val Phe Leu Lys Gln Gly Glu Cys Ala Ser Val
      180          185          190
His Pro Lys Thr Cys Pro Val Val Leu Pro Pro Glu Thr Arg Pro Leu
      195          200          205
Asn Gly Leu Gly Pro Pro Ser Thr Pro Leu Asp His Arg Gly Tyr Gln
      210          215          220
Ser Leu Ser Asp Ser Pro Pro Gly Ala Arg Val Phe Thr Glu Ser Glu
      225          230          235          240
Lys Arg Pro Leu Ser Ile Gln Asp Ser Phe Val Glu Val Ser Pro Val
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Cys Pro Arg Pro Arg Val Arg Leu Gly Ser Glu Ile Arg Asp Ser Val
      260          265          270
Val

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<210> 3179
 <211> 3447
 <212> DNA
 <213> Homo sapiens

<400> 3179

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taaatacatga tacaaccacc acaggcaatt accatcaaatt acattcccat gatttacaac
180

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240
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300
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360
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780
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<211> 127

<212> PRT

<213> Homo sapiens

<400> 3180

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			20				25					30			
Ala	Phe	Thr	Pro	Thr	Gly	Lys	Val	Lys	Leu	Thr	Phe	Val	Phe	Leu	Phe
	35				40						45				
Asn	Asn	Phe	Met	Ile	Asn	Lys	Glu	Leu	Gln	Leu	Glu	Thr	Lys	Ala	Asn
	50				55				60						
Ser	Arg	Asn	Ser	Leu	Thr	Pro	Ser	Cys	Pro	Met	Val	Phe	Met	Ile	Ala
65				70					75					80	
Cys	Tyr	Gln	Asn	Glu	Ala	Leu	Cys	Ser	Thr	Leu	Tyr	Ser	Lys	Ala	Phe
			85					90					95		
Tyr	Ala	Pro	Thr	Arg	Pro	Ser	Gly	Ile	Pro	Glu	Ser	Ala	Leu	His	Thr
			100				105					110			
Gly	Arg	Lys	Thr	Ala	Ser	Ser	Tyr	Arg	Leu	Cys	Glu	Asn	Thr	Gln	
		115					120					125			

<210> 3181

<211> 287

<212> DNA

<213> Homo sapiens

<400> 3181

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120
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<210> 3182

<211> 95

<212> PRT

<213> Homo sapiens

<400> 3182

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			20				25					30			
Gly	His	Met	Lys	Gln	Gly	Gly	Leu	Leu	Lys	Asp	Gly	Trp	Ala	Ser	Pro

	35					40						45					
Cys Thr Arg Ser Ser Pro Ser Ser Cys Trp Thr Gly Thr Leu Leu Gln																	
50 55 60 80																	
Ala Val Ser Ser Val Gln Val Leu Ser Phe Cys Leu Gln Lys Val Cys																	
65 70 75 80																	
Ser Ile Trp Cys Ser Cys Leu Met Pro His Thr Gly Asp Ala Pro																	
85 90 95																	

<210> 3183
<211> 1457
<212> DNA
<213> Homo sapiens

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180
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1200

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<210> 3184

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3184

Xaa	Tyr	Val	Ser	Cys	Ile	Val	Met	Thr	Pro	Ser	Leu	Cys	Val	Ala	Cys
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Pro	Gln	Leu	Ile	Thr	His	Ile	Pro	Arg	Asn	Ala	Gly	Tyr	Ser	Phe	Val
		20						25					30		
Gln	Thr	Gln	Leu	Leu	Val	Pro	Lys	Lys	Val	Leu	Pro	Glu	Ser	Cys	Arg
		35					40					45			
Leu	Ser	Trp	Asn	Leu	Leu	Gly	Asp	Glu	Ala	Ala	Ala	Glu	Leu	Ala	Gln
	50					55				60					
Val	Leu	Pro	Gln	Met	Gly	Arg	Leu	Lys	Arg	Val	Asp	Leu	Glu	Lys	Asn
65					70				75					80	
Gln	Ile	Thr	Ala	Leu	Gly	Ala	Trp	Leu	Leu	Ala	Glu	Gly	Leu	Ala	Gln
			85					90					95		
Gly	Ser	Ser	Ile	Gln	Val	Ile	Arg	Leu	Trp	Asn	Asn	Pro	Ile	Pro	Cys
			100					105					110		
Asp	Met	Ala	Gln	His	Leu	Lys	Ser	Gln	Glu	Pro	Arg	Leu	Asp	Phe	Ala
		115					120					125			
Phe	Phe	Asp	Asn	Gln	Pro	Gln	Ala	Pro	Trp	Gly	Thr				
	130					135					140				

<210> 3185

<211> 1433

<212> DNA

<213> Homo sapiens

<400> 3185

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 120
 cctggtaacc tgaggagggtg tagagcacc cagaaggaagg gtaaaagcag ggggcaaagc
 180
 ggtggccctc cttttctggg ggtcacttct gggctggggc cagctgaaac ctgtgtccaa
 240
 gtagctttca gggctggcca caccctaagc cttgcaaaag ggcctcctgc aagggtggc
 300
 ccatggggtc ccaccttcc cagccagtga ggtagcatg gttaggagtc cacatgtgtg
 360

caagtgcttg tgtggaggct catgtatgca tgtgtgtata tgcaaagctg cacatgacaa
 420
 tgtgcatgcc agtccagagt tagatgtacc tatgcagttg ccctcaagcg aagggtcata
 480
 tttggaaaca aggatggctc taaacatgta agcgtgcatg tgggcatgta tgtatctggg
 540
 gcctaaggag gtggggaagt ggggtgtggg gtaagggctg gccttcaggg catttgcaga
 600
 aggaggagtg ggtgggaggg aaaggctggg cagagcaggg gaaggagtga aagccaggca
 660
 ggaaagtgga agaacaggag aagctcatgt aatggattac cctccacagg attatgttcc
 720
 ttgattcctg agagtttttt ctcttgattt tacccttca gtctatcact gcaagagaaa
 780
 gaggtagaaa agacaaacag accacaaaag acaagaaccc agacatatag acagacgcac
 840
 ctgttgcattg tgcattgagcc agagcctggg agagaagaga gagcgtgcaa gagagagctc
 900
 agagcaggca ggcagccac cccctgcagc agtgcctggg ttcactggag cccctgcagg
 960
 aagtccagca gccctgtatg ccactcctct gggttgtcca ggtaacaggg gtgccccgcc
 1020
 cccttcattg tcagcaccgc gtgggtgggc agctgcttca ggtgctcaaa gctggtctga
 1080
 cccatggggt cctggtctcc atatacaatc agagctggag tctgagagga aggatagggg
 1140
 ggtggggcag agtcaacagg acctgccata gcatccccag cctccccac ttcagtctct
 1200
 tcctgggacc accccatattg agggagagag acaagctggc ccagtgggtg ggggcacaga
 1260
 ttggtgtctg cccagaaca cagtttagca cagggttgg cacagtagtc tgctgagtaa
 1320
 accaaaaggg tggagttggg tggtcagctc ctcccagaag acacccttg attatccagc
 1380
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 1433

<210> 3186

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3186

Met	Pro	Leu	Leu	Trp	Phe	Val	Gln	Val	Thr	Gly	Val	Pro	Arg	Pro	Leu
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His	Asp	Gln	His	Pro	Val	Val	Gly	Gln	Leu	Leu	Gln	Val	Leu	Lys	Ala
			20					25					30		
Gly	Leu	Thr	His	Gly	Val	Leu	Val	Ser	Ile	Tyr	Asn	Gln	Ser	Trp	Ser
		35					40					45			
Leu	Arg	Gly	Arg	Ile	Gly	Gly	Trp	Gly	Arg	Val	Asn	Arg	Thr	Cys	His
	50					55				60					
Ser	Ile	Pro	Ser	Pro	Pro	His	Phe	Ser	Leu	Phe	Leu	Gly	Pro	Pro	His
65					70					75				80	
Met	Arg	Glu	Arg	Asp	Lys	Leu	Ala	Gln	Trp	Val	Gly	Ala	Gln	Ile	Gly

85 90 95
 Val Cys Pro Arg Thr Gln Phe Ser Thr Gly Leu Gly Thr Val Val Cys
 100 105 110

<210> 3187
 <211> 860
 <212> DNA
 <213> Homo sapiens

<400> 3187
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 tatctaccag gagacggagt ttcgctatgt ttcccagact ggttttgaac tcctggccta
 120
 aagtggctct cccgcctcgg cctcctgagt agctgggatt acagatatgt tcctaaaaca
 180
 tccctgagtt caccaccttg gccagaagtt gttctgccag acccagttga ggagaccaga
 240
 caccatgcag aggtcgtgaa gaaggatgaat gagatgatcg tcacggggca gtatggcagg
 300
 ctctttgccc tgggtgcactt tgccagccgc cagtgggaagg tgacctctga agacctgatc
 360
 ttaattggaa atgaactaga ccttgctgtg ggagagagaa ttcgactgga gaaggctcctg
 420
 ctggttgggg cagacaactt cacgctgctt ggcaagccac tcctcgggta atggctgtga
 480
 agtgctgggc tttgtctggg gctccagggc tggacatgca gacagtggtc acagtgcaat
 540
 taggccagaa aggatcttgt tcgagtagaa gccacagtca ttgaaaagac agaatcatgg
 600
 ccaagaatca ttatgagatt caggaaaagg aaaaacttca agaagaaaag aagtaagtta
 660
 gagaaagtac cgctggggccc tgttgccacgg tgctgggttc ccaggcgcat gcggacggag
 720
 ggtgtggggc acgtgggtct cgggacagga agcccaggca ggtctcaacc tggctgccac
 780
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 840
 ctctccacg ctccacgcgt
 860

<210> 3188
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3188
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 Asp Tyr Arg Tyr Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro
 20 25 30
 Glu Val Val Leu Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu
 35 40 45
 Val Val Lys Lys Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg

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      50              55              60
Leu Phe Ala Val Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser
65              70              75              80
Glu Asp Leu Ile Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu
      85              90              95
Arg Ile Arg Leu Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr
      100              105              110
Leu Leu Gly Lys Pro Leu Leu Gly
      115              120

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<210> 3189

<211> 440

<212> DNA

<213> Homo sapiens

<400> 3189

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agcctgggga agcaagtccc tgttttcagt accacctgca tccccaggg cagcatcctt
120
gactcccctt ctgggccagt gctgccttgc tttctctgtc tctttcaggg tgtgctgtcc
180
gacctcacca aagtgacctg gatgcatgga atcgaccctg tgggtgctggt cctgatgggt
240
ggcatggtga tgttcacctt ggggttcgcc ggctgcgtgg gggctctgct ggagaatatc
300
tgcttgctca actttgtgag tggccacaga gacaagagtg ggatatgatg caatggggta
360
caggctctgc tgggcaggat tatatgttac ctggtcagag caggtggcag ctcttaggag
420
cctcccctat ggcccctgcc
440

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<210> 3190

<211> 111

<212> PRT

<213> Homo sapiens

<400> 3190

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Gly His Gly Trp Gly Arg Thr Leu Ala Trp Leu Ser Thr Arg Gly Leu
1              5              10              15
Ser Leu Gly Lys Gln Val Pro Val Phe Ser Thr Thr Cys Ile Pro Gln
      20              25              30
Gly Ser Ile Leu Asp Ser Pro Ser Gly Pro Val Leu Pro Cys Phe Leu
      35              40              45
Cys Leu Phe Gln Gly Val Leu Ser Asp Leu Thr Lys Val Thr Arg Met
      50              55              60
His Gly Ile Asp Pro Val Val Leu Val Leu Met Val Gly Met Val Met
65              70              75              80
Phe Thr Leu Gly Phe Ala Gly Cys Val Gly Ala Leu Arg Glu Asn Ile
      85              90              95
Cys Leu Leu Asn Phe Val Ser Gly His Arg Asp Lys Ser Gly Ile
      100              105              110

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<210> 3191
 <211> 266
 <212> DNA
 <213> Homo sapiens

<400> 3191
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 accttttgcg gcagtcgcta aattgccacg ggtcgtcttt gctctctcta cttcggagcg
 120
 aacagcagga caatccacac ttccgtagcc tcctgggggc ggccgccgag ccagcccggg
 180
 gcccgccgcc ccagcaccgc ttgcagggca gaaaagagaa gagagttgac aacatcgaga
 240
 tacagaaatt catctcccaa aaagcg
 266

<210> 3192
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 3192
 Met Asn Phe Cys Ile Ser Met Leu Ser Thr Leu Phe Ser Phe Leu Pro
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 Cys Asn Gly Cys Trp Gly Gly Gly Pro Arg Ala Gly Ser Ala Ala Asp
 20 25 30
 Pro Arg Arg Leu Arg Lys Cys Gly Leu Ser Cys Cys Ser Leu Arg Ser
 35 40 45
 Arg Glu Ser Lys Asp Asp Pro Trp Gln Phe Ser Asp Cys Arg Lys Arg
 50 55 60
 Ser Arg Ser Met Ala Gln Val Ala Asp Thr Glu Gln Gly Thr Ile Ser
 65 70 75 80
 Pro Ser Ala Ser

<210> 3193
 <211> 567
 <212> DNA
 <213> Homo sapiens

<400> 3193
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 acagcctgcc tgagtgttca gatccaggct ctgccagag ctggatgtaa atttatgacc
 120
 tggagtgcgt tgttttgccc ctctgagcct cagtttctcc atctgtgaaa tggggacaac
 180
 agcagttcct tccaggaggg taaaaggagg agaaaaagaa tgcagatcca gccctcggca
 240
 gagtcagcgg ttcattgcttt gcatgcaaag tgcccagccc ctggctcaaa gtctgtgttc
 300
 atccagacct gggttaacta ctgtcttctt tatgttggtc ctgtggggac gcctggggct
 360

gctggcctcg tgattcctct ctttccctgc aggccacggt tcacctactt ccccttctcc
 420
 ctgggccacc gctcctgcat cgggcagcag tttgctcaga tggaggtgaa ggtgggtcatg
 480
 gcaaagctgc tgcagaggct ggagttccgg ctggtgcccg ggcagcgctt cgggctgcag
 540
 gagcaggcca cactcaagcc actggac
 567

<210> 3194

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3194

Met	Gln	Ile	Gln	Pro	Ser	Ala	Glu	Ser	Ala	Val	His	Ala	Leu	His	Ala
1				5				10					15		
Lys	Cys	Pro	Ala	Pro	Gly	Ser	Lys	Ser	Val	Phe	Ile	Gln	Thr	Trp	Val
		20				25						30			
Asn	Tyr	Cys	Leu	Pro	Tyr	Val	Val	Pro	Val	Gly	Thr	Pro	Gly	Ala	Ala
		35				40						45			
Gly	Leu	Val	Ile	Pro	Leu	Phe	Pro	Cys	Arg	Pro	Arg	Phe	Thr	Tyr	Phe
	50					55				60					
Pro	Phe	Ser	Leu	Gly	His	Arg	Ser	Cys	Ile	Gly	Gln	Gln	Phe	Ala	Gln
65					70					75				80	
Met	Glu	Val	Lys	Val	Val	Met	Ala	Lys	Leu	Leu	Gln	Arg	Leu	Glu	Phe
			85						90				95		
Arg	Leu	Val	Pro	Gly	Gln	Arg	Phe	Gly	Leu	Gln	Glu	Gln	Ala	Thr	Leu
			100					105					110		
Lys	Pro	Leu	Asp												
			115												

<210> 3195

<211> 987

<212> DNA

<213> Homo sapiens

<400> 3195

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 gcttcgacta cgaacgcaag accaaagtgg acttcgatga cttcctccca gctatccgga
 120
 agccccagac acctacctcc ttggctggat cagccaaagg tgggcaagac ggttcacagc
 180
 gttcaagcat ccactttgaa acggaagagg ctaaccgttc ctttctctcg gggatcaaga
 240
 ccattttgaa gaagagcccc gagcccaagg aggatcccc tcacctgtct gactcgtcct
 300
 catcctccgg ctccatcgtg tccttcaaaa gtgctgacag catcaaaagt cgaccaggaa
 360
 tccacagact tgcgggtgac ggtggcgagc gaacgtcccc cgagcggaga gagccaggga
 420
 cggggaggaa agacgacgat gttgcgagca taatgaagaa atacctccag aagtaggaac
 480

cagttcagcc tccttgaagc tgccttgaa gacttcccga ctctacaata acttgagac
 540
 agagagactg gccaggcctc cccggtggcc agagccagcc agcatggcca cctcaagag
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 660
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 720
 ggattccaga gagttgatgg ggtgcagata ggggtaggac tgtagaata gaaccaaccc
 780
 aaactgtgtg tagtttgggg tgtatacttc tatttctctt cctacatgtc tacatgccat
 840
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 900
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 960
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 987

<210> 3196

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3196

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Leu	Asp	Tyr	Glu	Arg	Lys	Thr	Lys	Val	Asp	Phe	Asp	Asp	Phe	Leu	Pro
			20					25					30		
Ala	Ile	Arg	Lys	Pro	Gln	Thr	Pro	Thr	Ser	Leu	Ala	Gly	Ser	Ala	Lys
			35				40						45		
Gly	Gly	Gln	Asp	Gly	Ser	Gln	Arg	Ser	Ser	Ile	His	Phe	Glu	Thr	Glu
	50					55					60				
Glu	Ala	Asn	Arg	Ser	Phe	Leu	Ser	Gly	Ile	Lys	Thr	Ile	Leu	Lys	Lys
65					70					75				80	
Ser	Pro	Glu	Pro	Lys	Glu	Asp	Pro	Ala	His	Leu	Ser	Asp	Ser	Ser	Ser
				85					90					95	
Ser	Ser	Gly	Ser	Ile	Val	Ser	Phe	Lys	Ser	Ala	Asp	Ser	Ile	Lys	Ser
			100					105					110		
Arg	Pro	Gly	Ile	Pro	Arg	Leu	Ala	Gly	Asp	Gly	Gly	Glu	Arg	Thr	Ser
		115				120						125			
Pro	Glu	Arg	Arg	Glu	Pro	Gly	Thr	Gly	Arg	Lys	Asp	Asp	Asp	Val	Ala
	130					135					140				
Ser	Ile	Met	Lys	Lys	Tyr	Leu	Gln	Lys							
145					150										

<210> 3197

<211> 5575

<212> DNA

<213> Homo sapiens

<400> 3197

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agagcaatgg cgacactgga tcgcaaagtg cccagtcgag aggcgtttct gggcaaacc
180
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240
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480
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acgccccaaag acaatctact tacctccagc agcaaacagc acacagtctt tcctgcgaaa
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720
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1560
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1620
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1680

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3300

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3360
gaacaggttt gggaaagtg ggcagcaagcag agcatggtgg gtaggagatg atccctaaaa
3420
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3480
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3540
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3660
caaactttt gtcagaataa ataatagcat tcccaccca ccccatgcc ctgggccaca
3720
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3780
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4200
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4320
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4560
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4620
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4680
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4740
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4920

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<210> 3198

<211> 833

<212> PRT

<213> Homo sapiens

<400> 3198

Met	Ala	Thr	Leu	Asp	Arg	Lys	Val	Pro	Ser	Pro	Glu	Ala	Phe	Leu	Gly
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Lys	Pro	Trp	Ser	Trp	Ile	Asp	Ala	Ala	Lys	Leu	His	Cys	Ser	Asp	
			20				25					30			
Asn	Val	Asp	Leu	Glu	Glu	Ala	Gly	Lys	Glu	Gly	Gly	Lys	Ser	Arg	Glu
			35				40					45			
Val	Met	Arg	Leu	Asn	Lys	Glu	Asp	Met	His	Leu	Phe	Gly	His	Tyr	Pro
			50			55					60				
Ala	His	Asp	Asp	Phe	Tyr	Leu	Val	Val	Cys	Ser	Ala	Cys	Asn	Gln	Val
65					70					75				80	
Val	Lys	Pro	Gln	Val	Phe	Gln	Ser	His	Cys	Glu	Arg	Arg	His	Gly	Ser
			85						90					95	
Met	Cys	Arg	Pro	Ser	Pro	Ser	Pro	Val	Ser	Pro	Ala	Ser	Asn	Pro	Arg
			100					105					110		
Thr	Ser	Leu	Val	Gln	Val	Lys	Thr	Lys	Ala	Cys	Leu	Ser	Gly	His	His
			115			120						125			
Ser	Ala	Ser	Ser	Thr	Ser	Lys	Pro	Phe	Lys	Thr	Pro	Lys	Asp	Asn	Leu
			130			135					140				
Leu	Thr	Ser	Ser	Ser	Lys	Gln	His	Thr	Val	Phe	Pro	Ala	Lys	Gly	Ser
145					150					155				160	
Arg	Asp	Lys	Pro	Cys	Val	Pro	Val	Pro	Val	Val	Ser	Leu	Glu	Lys	Ile
			165					170						175	
Pro	Asn	Leu	Val	Lys	Ala	Asp	Gly	Ala	Asn	Val	Lys	Met	Asn	Ser	Thr
			180					185					190		
Thr	Thr	Thr	Ala	Val	Ser	Ala	Ser	Pro	Thr	Ser	Ser	Ser	Ala	Val	Ser

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      195              200              205
Thr Pro Pro Leu Ile Lys Pro Val Leu Met Ser Lys Ser Val Pro Pro
  210              215              220
Ser Pro Glu Lys Ile Leu Asn Gly Lys Gly Ile Leu Pro Thr Thr Ile
  225              230              235              240
Asp Lys Lys His Gln Asn Gly Thr Lys Asn Ser Asn Lys Pro Tyr Arg
      245              250              255
Arg Leu Ser Glu Arg Glu Phe Asp Pro Asn Lys His Cys Gly Val Leu
      260              265              270
Asp Pro Glu Thr Lys Lys Pro Cys Thr Arg Ser Leu Thr Cys Lys Thr
      275              280              285
His Ser Leu Ser His Arg Arg Ala Val Pro Gly Arg Lys Lys Gln Phe
      290              295              300
Asp Leu Leu Leu Ala Glu His Lys Ala Lys Ser Arg Glu Lys Glu Val
  305              310              315              320
Lys Asp Lys Glu His Leu Leu Thr Ser Thr Arg Glu Ile Leu Pro Ser
      325              330              335
Gln Ser Gly Pro Ala Gln Asp Ser Leu Leu Gly Ser Ser Gly Ser Ser
      340              345              350
Gly Pro Glu Pro Lys Val Ala Ser Pro Ala Lys Ser Arg Pro Pro Asn
      355              360              365
Ser Val Leu Pro Arg Pro Ser Ser Ala Asn Ser Ile Ser Ser Ser Thr
      370              375              380
Ser Ser Asn His Ser Gly His Thr Pro Glu Pro Pro Leu Pro Pro Val
  385              390              395              400
Gly Gly Asp Leu Ala Ser Arg Leu Ser Ser Asp Glu Gly Glu Met Asp
      405              410              415
Gly Ala Asp Glu Ser Glu Lys Leu Asp Cys Gln Phe Ser Thr His His
      420              425              430
Pro Arg Pro Leu Ala Phe Cys Ser Phe Gly Ser Arg Leu Met Gly Arg
      435              440              445
Gly Tyr Tyr Val Phe Asp Arg Arg Trp Asp Arg Phe Arg Phe Ala Leu
      450              455              460
Asn Ser Met Val Glu Lys His Leu Asn Ser Gln Met Trp Lys Lys Ile
  465              470              475              480
Pro Pro Ala Ala Asp Ser Pro Met Pro Ser Pro Ala Ala His Ile Thr
      485              490              495
Thr Pro Val Pro Ala Ser Val Leu Gln Pro Phe Ser Asn Pro Ser Ala
      500              505              510
Val Tyr Leu Pro Ser Ala Pro Ile Ser Ser Arg Leu Thr Ser Ser Tyr
      515              520              525
Ile Met Thr Ser Ala Met Leu Ser Asp Ala Ala Phe Val Thr Ser Pro
      530              535              540
Asp Pro Ser Ala Leu Met Ser His Thr Thr Ala Phe Pro His Val Ala
  545              550              555              560
Ala Thr Leu Ser Ile Met Asp Ser Thr Phe Lys Ala Pro Ser Ala Val
      565              570              575
Ser Pro Ile Pro Ala Val Ile Pro Ser Pro Ser His Lys Pro Ser Lys
      580              585              590
Thr Lys Thr Ser Lys Ser Ser Lys Val Lys Asp Leu Ser Thr Arg Ser
      595              600              605
Asp Glu Ser Pro Ser Asn Lys Lys Arg Lys Pro Gln Ser Ser Thr Ser
      610              615              620
Ser Ser Ser Ser Ser Ser Ser Ser Ser Leu Gln Thr Ser Leu Ser Ser

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625 630 635 640
 Pro Leu Ser Gly Pro His Lys Lys Asn Cys Val Leu Asn Ala Ser Ser
 645 650 655
 Ala Leu Asn Ser Tyr Gln Ala Ala Pro Pro Tyr Asn Ser Leu Ser Val
 660 665 670
 His Asn Ser Asn Asn Gly Val Ser Pro Leu Ser Ala Lys Leu Glu Pro
 675 680 685
 Ser Gly Arg Thr Ser Leu Pro Gly Gly Pro Ala Asp Ile Val Arg Gln
 690 695 700
 Val Gly Ala Val Gly Gly Ser Ser Asp Ser Cys Pro Leu Ser Val Pro
 705 710 715 720
 Ser Leu Ala Leu His Ala Gly Asp Leu Ser Leu Ala Ser His Asn Ala
 725 730 735
 Val Ser Ser Leu Pro Leu Ser Phe Asp Lys Ser Glu Gly Lys Lys Arg
 740 745 750
 Lys Asn Ser Ser Ser Ser Ser Lys Ala Cys Lys Ile Thr Lys Met Pro
 755 760 765
 Gly Met Asn Ser Val His Lys Lys Asn Pro Pro Ser Leu Leu Ala Pro
 770 775 780
 Val Pro Asp Pro Val Asn Ser Thr Ser Ser Arg Gln Val Gly Lys Asn
 785 790 795 800
 Ser Ser Leu Ala Leu Ser Gln Ser Ser Pro Ser Ser Ile Ser Ser Pro
 805 810 815
 Gly His Ser Arg Gln Asn Thr Asn Arg Thr Gly Arg Ile Arg Thr Leu
 820 825 830
 Pro

<210> 3199

<211> 777

<212> DNA

<213> Homo sapiens

<400> 3199

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 120
 caagcagctc ccacagctgg cactggggaa cgtgggtgaca ccagaagct tggagatgcc
 180
 aggaaccgca agggcccaaa gagagtgtca cagccctggc ttagggagct cctaggtctg
 240
 ggctgcccga agagcaaggc ctcttccttc cttctttctt ttctccttct tgctacctgc
 300
 aacatggcga gcaaggggca tgtctcagcc ctgtttgtga tacagctctt ttagccctgc
 360
 catccagtgg gtccctgagtt cttgtccggc aaccaggaag aatgaggtac ccagacaagt
 420
 gttagtgac caagacaaag aggagcttta ctgagtgaca atagctcaga ggaggccctg
 480
 gagagggcag ttctcacta cagctggtea tccgacgtct gctcagctct ggctgagcct
 540
 ggggcttctg tcagcctcag agagggggaa gttcatgctg actgggtccat gggcggccat
 600

gggcaggccc agaaaaggca acacaagttc gcactccagt ccacggcact gacagcctgg
 660
 cccccagcct tcagggcctc cctggcctga aggtgggcct caccagggac tcaccccctt
 720
 ctgcccagaa acctgtctgc ctccctgtgc cattcatggc gcccaggcta taggtat
 777

<210> 3200

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3200

Met	Leu	Gln	Val	Ala	Arg	Arg	Arg	Lys	Glu	Arg	Arg	Lys	Glu	Glu	Pro
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Leu	Leu	Phe	Gly	Gln	Pro	Arg	Pro	Arg	Ser	Ser	Leu	Ser	Gln	Gly	Cys
			20					25					30		
Asp	Thr	Leu	Phe	Gly	Ala	Leu	Arg	Phe	Leu	Ala	Ser	Pro	Ser	Phe	Trp
			35				40					45			
Val	Ser	Pro	Arg	Ser	Pro	Val	Pro	Ala	Val	Gly	Ala	Ala	Cys	Cys	Met
	50				55				60						
Pro	Gly	Pro	Ala	Thr	Ala	Ser	Gln	Arg	Ala	Gly	Ala	Leu	Thr	Ser	Thr
65				70					75				80		
Trp	Ser	Cys	Leu	Pro	His	Cys	Ser	Ser	Arg	Arg	Val				
			85					90							

<210> 3201

<211> 390

<212> DNA

<213> Homo sapiens

<400> 3201

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 120
 gaagccgaca gcctttggga ccgaggtcag cagctgcacc ggcgcaagaa ttccaaacac
 180
 agctgtggct gaagggcctg ggggtgtgca ggtcccaaac cccagtgagc ctgatcccga
 240
 catgggtcct gtctcctggg ggccaccttt gtgtcccgtg gtggtgacc ctgagagggg
 300
 gggctgtggg gatgctcaca tgacactggg gtcccagcga cagcccctcc tcacgtgcg
 360
 tgtccctggg gcctctcagg agggacgcgt
 390

<210> 3202

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3202

Met Gly Thr Arg Lys Gln Leu Pro Ser Arg Leu Pro Gln Ala Gly Arg

1		5		10		15									
Lys	Gly	His	Ala	Ala	Ala	Gly	Val	Ser	Thr	Ala	Lys	Pro	Thr	Ala	Phe
		20						25					30		
Gly	Thr	Glu	Val	Ser	Ser	Cys	Thr	Gly	Ala	Arg	Ile	Pro	Asn	Thr	Ala
		35					40					45			
Val	Ala	Glu	Gly	Pro	Gly	Gly	Val	Gln	Val	Pro	Asn	Pro	Ser	Glu	Pro
		50				55					60				
Asp	Pro	Asp	Met	Gly	Pro	Val	Ser	Trp	Gly	Pro	Pro	Leu	Cys	Pro	Val
65					70					75				80	
Val	Ala	Asp	Pro	Glu	Arg	Glu	Gly	Cys	Gly	Asp	Ala	His	Met	Thr	Leu
			85					90					95		
Gly	Ser	Gln	Arg	Gln	Pro	Leu	Leu	Thr	Leu	Arg	Val	Pro	Gly	Ala	Ser
		100						105					110		
Gln	Glu	Gly	Arg												
		115													

<210> 3203

<211> 1906

<212> DNA

<213> Homo sapiens

<400> 3203

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720
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780
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900
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960

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 1080
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 1140
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 1200
 gtgcctacaa gagatggcac cgcaccccca cccagtcct cgggggtccc aggcacgggg
 1260
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 1800
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<210> 3204

<211> 424

<212> PRT

<213> Homo sapiens

<400> 3204

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Trp	Glu	Ala	Gly	Asn	Tyr	Arg	Arg	Thr	Val	Gln	Arg	Val	Glu	Asp	Gly
		20					25					30			
His	Arg	Leu	Cys	Gly	Asp	Leu	Val	Ser	Cys	Phe	Gln	Glu	Arg	Ala	Arg
		35				40					45				
Ile	Glu	Lys	Ala	Tyr	Ala	Gln	Gln	Leu	Ala	Asp	Trp	Ala	Arg	Lys	Trp
	50				55			60							
Arg	Gly	Thr	Val	Glu	Lys	Gly	Pro	Gln	Tyr	Gly	Thr	Leu	Glu	Lys	Ala
65				70				75				80			
Trp	His	Ala	Phe	Phe	Thr	Ala	Ala	Glu	Arg	Leu	Ser	Ala	Leu	His	Leu
		85						90				95			
Glu	Val	Arg	Glu	Lys	Leu	Gln	Gly	Gln	Asp	Ser	Glu	Arg	Val	Arg	Ala
		100					105					110			
Trp	Gln	Arg	Gly	Ala	Phe	His	Arg	Pro	Val	Leu	Gly	Gly	Phe	Arg	Glu

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Ser Arg Ala Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro Trp Leu
      130      135      140
Lys Arg Leu Lys Glu Val Glu Ala Ser Lys Lys Ser Tyr His Ala Ala
145      150      155      160
Arg Lys Asp Glu Lys Thr Ala Gln Thr Arg Glu Ser His Ala Lys Ala
      165      170      175
Asp Ser Ala Val Ser Gln Glu Gln Leu Arg Lys Leu Gln Glu Arg Val
      180      185      190
Glu Arg Cys Ala Lys Glu Ala Glu Lys Thr Lys Ala Gln Tyr Glu Gln
195      200      205
Thr Leu Ala Glu Leu His Arg Tyr Thr Pro Arg Tyr Met Glu Asp Met
210      215      220
Glu Gln Ala Phe Glu Thr Cys Gln Ala Ala Glu Arg Gln Arg Leu Leu
225      230      235      240
Phe Phe Lys Asp Met Leu Leu Thr Leu His Gln His Leu Asp Leu Ser
      245      250      255
Ser Ser Glu Lys Phe His Glu Leu His Arg Asp Leu His Gln Gly Ile
      260      265      270
Glu Ala Ala Ser Asp Glu Glu Asp Leu Arg Trp Trp Arg Ser Thr His
275      280      285
Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp Ser Leu
290      295      300
Asp Thr Gln Arg Thr Ile Ser Arg Lys Glu Lys Gly Gly Arg Ser Pro
305      310      315      320
Asp Glu Val Thr Leu Thr Ser Ile Val Pro Thr Arg Asp Gly Thr Ala
      325      330      335
Pro Pro Pro Gln Ser Pro Gly Ser Pro Gly Thr Gly Gln Asp Glu Glu
      340      345      350
Trp Ser Asp Glu Glu Ser Pro Arg Lys Ala Ala Thr Gly Val Arg Val
      355      360      365
Arg Ala Leu Tyr Asp Tyr Ala Gly Gln Glu Ala Asp Glu Leu Ser Phe
370      375      380
Arg Ala Gly Glu Glu Leu Leu Lys Met Ser Glu Glu Asp Glu Gln Gly
385      390      395      400
Trp Cys Gln Gly Gln Leu Gln Ser Gly Arg Ile Gly Leu Tyr Pro Ala
      405      410      415
Asn Tyr Val Glu Cys Val Gly Ala
      420

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<210> 3205

<211> 1482

<212> DNA

<213> Homo sapiens

<400> 3205

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120
ctgttgcaac ccacaggaga gccccggagc tatgtggagt ctgtggcacg gacagcggcg
180
gctggacccc gagctcagga ctctgagccc aagagcttta gtgctccagc caccaggcc
240

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tatggccatg agatacccct gaggaacggg accctgggtg gtcctttgt cccccccagc
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 360
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 420
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 480
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 540
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 600
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 660
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 720
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 780
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 840
 caggtttctg gcctccacaa caaagtggcc accaccccgg ggagtcccag cctgggcccg
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 960
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 1080
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 1260
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 1380
 cccgacttct ccaagtactc catgccagac aacagcccgg agacgcgggc taaagtgaag
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 1482

<210> 3206

<211> 494

<212> PRT

<213> Homo sapiens

<400> 3206

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Arg	Ser	Pro	Pro	Gly	Leu	Ala	Lys	Thr	Pro	Leu	Ser	Ala	Leu	Gly	Leu
			20				25					30			
Lys	Pro	His	Asn	Pro	Ala	Asp	Ile	Leu	Leu	His	Pro	Thr	Gly	Glu	Pro

35 40 45
 Arg Ser Tyr Val Glu Ser Val Ala Arg Thr Ala Val Ala Gly Pro Arg
 50 55 60
 Ala Gln Asp Ser Glu Pro Lys Ser Phe Ser Ala Pro Ala Thr Gln Ala
 65 70 75 80
 Tyr Gly His Glu Ile Pro Leu Arg Asn Gly Thr Leu Gly Gly Ser Phe
 85 90 95
 Val Ser Pro Ser Pro Leu Ser Thr Ser Ser Pro Ile Leu Ser Ala Asp
 100 105 110
 Ser Thr Ser Val Gly Ser Phe Pro Ser Gly Glu Ser Ser Asp Gln Gly
 115 120 125
 Pro Arg Thr Pro Thr Gln Pro Leu Leu Glu Ser Gly Phe Arg Ser Gly
 130 135 140
 Ser Leu Gly Gln Pro Ser Pro Ser Ala Gln Arg Asn Tyr Gln Ser Ser
 145 150 155 160
 Ser Pro Leu Pro Thr Val Gly Ser Ser Tyr Ser Ser Pro Asp Tyr Ser
 165 170 175
 Leu Gln His Phe Ser Ser Ser Pro Glu Ser Gln Ala Arg Ala Gln Phe
 180 185 190
 Ser Val Ala Gly Val His Thr Val Pro Gly Ser Pro Gln Ala Arg His
 195 200 205
 Arg Thr Val Gly Thr Asn Thr Pro Pro Ser Pro Gly Phe Gly Trp Arg
 210 215 220
 Ala Ile Asn Pro Ser Met Ala Ala Pro Ser Ser Pro Ser Leu Ser His
 225 230 235 240
 His Gln Met Met Gly Pro Pro Gly Thr Gly Phe His Gly Ser Thr Val
 245 250 255
 Ser Ser Pro Gln Ser Ser Ala Ala Thr Thr Pro Gly Ser Pro Ser Leu
 260 265 270
 Cys Arg His Pro Ala Gly Val Tyr Gln Val Ser Gly Leu His Asn Lys
 275 280 285
 Val Ala Thr Thr Pro Gly Ser Pro Ser Leu Gly Arg His Pro Gly Ala
 290 295 300
 His Gln Gly Asn Leu Ala Ser Gly Leu His Ser Asn Ala Ile Ala Ser
 305 310 315 320
 Pro Gly Ser Pro Ser Leu Gly Arg His Leu Gly Gly Ser Gly Ser Val
 325 330 335
 Val Pro Gly Ser Pro Cys Leu Asp Arg His Val Ala Tyr Gly Gly Tyr
 340 345 350
 Ser Thr Pro Glu Asp Arg Arg Pro Thr Leu Ser Arg Gln Ser Ser Ala
 355 360 365
 Ser Gly Tyr Gln Ala Pro Ser Thr Pro Ser Phe Pro Val Ser Pro Ala
 370 375 380
 Tyr Tyr Pro Gly Leu Ser Ser Pro Ala Thr Ser Pro Ser Pro Asp Ser
 385 390 395 400
 Ala Ala Phe Arg Gln Gly Ser Pro Thr Pro Ala Leu Pro Glu Lys Arg
 405 410 415
 Arg Met Ser Val Gly Asp Arg Ala Gly Ser Leu Pro Asn Tyr Ala Thr
 420 425 430
 Ile Asn Gly Lys Val Ser Ser Pro Val Ala Ser Gly Met Ser Ser Pro
 435 440 445
 Ser Gly Gly Ser Thr Val Ser Phe Ser His Thr Leu Pro Asp Phe Ser
 450 455 460
 Lys Tyr Ser Met Pro Asp Asn Ser Pro Glu Thr Arg Ala Lys Val Lys

465 470 475 480

Phe Val Gln Asp Thr Ser Lys Tyr Trp Tyr Lys Pro Lys Ile

485 490

<210> 3207

<211> 495

<212> DNA

<213> Homo sapiens

<400> 3207

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120

ctgtcgcgca agctgcataa gatcctggag acgcggtctgg acaacgacaa ggagatgtta

180

gaagctctca aggcactttc aacctttttt gttgaaaata gtctgcggac tcgaagaaat

240

ttacgtggag atattgaacg taaaagttaa gccatcaatg aagaatttgt aagcattttc

300

aaggaagtga aggaggaact tgaaagcata agcgaagatg ttcaagcaat gagcaactgt

360

tgtcaagata tgacaagtcg cctacaggca gcaaaggaac agactcaaga tttaatagta

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480

gccttcttat ccaag

495

<210> 3208

<211> 107

<212> PRT

<213> Homo sapiens

<400> 3208

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Leu Arg Thr Arg Arg Asn Leu Arg Gly Asp Ile Glu Arg Lys Ser Leu

20 25 30

Ala Ile Asn Glu Glu Phe Val Ser Ile Phe Lys Glu Val Lys Glu Glu

35 40 45

Leu Glu Ser Ile Ser Glu Asp Val Gln Ala Met Ser Asn Cys Cys Gln

50 55 60

Asp Met Thr Ser Arg Leu Gln Ala Ala Lys Glu Gln Thr Gln Asp Leu

65 70 75 80

Ile Val Asn Thr Thr Lys Leu Gln Ser Glu Ser Gln Lys Leu Glu Ile

85 90 95

Arg Ala Gln Val Ala Asp Ala Phe Leu Ser Lys

100 105

<210> 3209

<211> 346

<212> DNA

<213> Homo sapiens

<400> 3209

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 ggaaccaggg accccctatc ttggtaccgg tcattggatg tatccccagc tcatgcctgt
 240
 gtctgtcttg gcccggtgtg tcacctgtg ttcattctctc tcccagccat ggcctctcaa
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 346

<210> 3210

<211> 95

<212> PRT

<213> Homo sapiens

<400> 3210

Met	Arg	Pro	Ala	Leu	Ser	Leu	Leu	Thr	Trp	Ala	Leu	Pro	Thr	Gly	Lys
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Cys	Ser	His	Ser	Arg	Arg	Ile	Ser	Pro	Thr	Val	Gln	Gly	Cys	Val	Ser
			20					25					30		
Gly	Glu	Arg	Ala	Leu	Gly	Ser	Cys	Gly	Asn	Gln	Gly	Pro	Pro	Ile	Leu
			35				40					45			
Val	Pro	Val	Ile	Gly	Cys	Ile	Pro	Ser	Ser	Cys	Leu	Cys	Leu	Ser	Trp
	50					55					60				
Pro	Val	Trp	Ser	Pro	Cys	Val	His	Leu	Ser	Pro	Ser	His	Gly	Leu	Ser
65					70					75				80	
Asn	Trp	Gly	Phe	Arg	Leu	Pro	Met	Arg	Gly	Ser	Trp	Tyr	Val	Arg	
			85						90					95	

<210> 3211

<211> 1728

<212> DNA

<213> Homo sapiens

<400> 3211

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 120
 gtttccttgg ccattcgtgca agccagtccg aaggaccagg gactctatta ctgctgcac
 180
 aagaacagct acggaaaagt gactgctgaa tttaacctca cagctgaagt tctcaaacag
 240
 ctgtcaagtc acacagaata ctaaaggatg tgaagagatt gaattcagcc aactcatctt
 300
 caaagaagac ttcctccatg acagctactt tggggggccgc ctgctgtggtc agatcgccac
 360
 ggaggagctg cactttggag aaggggttca ccgcaaagcc ttccgcagca cagtgatgca
 420

cggcctcatg cctgtcttca aacctggcca tgcctgtgtg cttaaggtgc acaatgccat
 480
 tgcctatggg accagaaata atgatgagct catccaaagg aactacaaac tcgctgccca
 540
 ggaatgctat gttcaaaata ctgccaggta ttatgccaaag atctacgctg ctgaagcaca
 600
 gcctctggaa ggctttggag aagtacctga gatcattcct atttttctta tccatcggcc
 660
 tgagaacaat atcccgtatg ctacagtggg ggaggagctg attggagaat ttgtgaagta
 720
 ttccatcagg gatgggaaag aaataaactt cttgagaaga gaatcagaag ctggtcagaa
 780
 atgttgcacc ttccagcact ggggtgtacca gaaaacaagt ggctgcctcc tgggtgacgga
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 catgcaaggt gtaggaatga agctaactga cgttggcata gcaacgctgg ctaaagggta
 900
 caagggattt aaaggcaact gttccatgac cttcattgat cagtttaaag cactacacca
 960
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 1020
 gaagcagccg agcattggga aaagcaaagt tcaaacaaac tctatgacag taaagaaggc
 1080
 agggcctgag accccaggcg aaaagaaaac ctaacgtccc cgggtaacct aatggccact
 1140
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 1200
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 1260
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 1320
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 1380
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 1440
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 1560
 atcaagttgt tccactggtg tctaatacgc tattgttgcc ggaggtgggt tctgtgacgt
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 1680
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 1728

<210> 3212

<211> 87

<212> PRT

<213> Homo sapiens

<400> 3212

Ser	Gly	Asn	Ile	Lys	Leu	Ser	Tyr	Gln	Phe	Ser	Glu	Ile	His	Glu	Asp
1				5				10					15		
Ser	Thr	Val	Cys	Trp	Thr	Lys	Asp	Ser	Lys	Ser	Ile	Ala	Gln	Ala	Lys

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                20                25                30
Lys Ser Ala Gly Asp Asn Ser Ser Val Ser Leu Ala Ile Val Gln Ala
                35                40                45
Ser Pro Lys Asp Gln Gly Leu Tyr Tyr Cys Cys Ile Lys Asn Ser Tyr
                50                55                60
Gly Lys Val Thr Ala Glu Phe Asn Leu Thr Ala Glu Val Leu Lys Gln
65                70                75                80
Leu Ser Ser His Thr Glu Tyr
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<210> 3213

<211> 348

<212> DNA

<213> Homo sapiens

<400> 3213

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tctaccgtca tcatggctaa tgaggactgt cccaaggctg ctgatagtcc tttttcatca
120
gataaacatg cccaactcat cttggcccaa atcaataaga tgagaaatgg acagcatttc
180
tgtgatgtgc agctgcaagt tggacaggaa agttttaaag ctcacggct ggttttggct
240
gccagcagtc cttactttgc agctttgttc actggaggaa tgaaagagtc ctcaaaagat
300
gttgtagcga ttctaggaat tgaagcagga atctttcaga tacttcta
348

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<210> 3214

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3214

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Met Ala Asn Glu Asp Cys Pro Lys Ala Ala Asp Ser Pro Phe Ser Ser
 1                5                10                15
Asp Lys His Ala Gln Leu Ile Leu Ala Gln Ile Asn Lys Met Arg Asn
                20                25                30
Gly Gln His Phe Cys Asp Val Gln Leu Gln Val Gly Gln Glu Ser Phe
 35                40                45
Lys Ala His Arg Leu Val Leu Ala Ala Ser Ser Pro Tyr Phe Ala Ala
 50                55                60
Leu Phe Thr Gly Gly Met Lys Glu Ser Ser Lys Asp Val Val Pro Ile
65                70                75                80
Leu Gly Ile Glu Ala Gly Ile Phe Gln Ile Leu Leu
                85                90

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<210> 3215

<211> 597

<212> DNA

<213> Homo sapiens

<400> 3215

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 120
 accttcaagt tcgacttgga cggggacgca cccgatgaaa ttgccacgta tatgggtggag
 180
 catgacttta tcctgcaggc cgagcgggaa acgttcacgc agcagatgaa ggatgtcatg
 240
 gacaaggcag aggacatgct cagcgaggac acagacgccg accgtggctc cgacccaggg
 300
 accagccccg cacacctcag cacctgcggc ctgggcaccg gggaggagag ccgacaatcc
 360
 caagccaacg ccccggtgta tcagcagaac gtcctgcaca ccgggaagag gtggttcac
 420
 atctgtccgg tgctgagcc ccccgcccc gagggccctt gaatcttcgc cccacttcc
 480
 tctaagctcc ctgccgccag aagccagcca agattcagcg ccctataaag accagctgtc
 540
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 597

<210> 3216

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3216

Thr	Arg	Ala	Arg	Ser	Arg	Gln	Glu	Arg	Ala	Ser	Arg	Pro	Arg	Leu	Thr
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Ile	Leu	Asn	Val	Cys	Asn	Thr	Gly	Asp	Lys	Met	Val	Glu	Cys	Gln	Leu
		20					25					30			
Glu	Thr	His	Asn	His	Lys	Met	Val	Thr	Phe	Lys	Phe	Asp	Leu	Asp	Gly
	35					40					45				
Asp	Ala	Pro	Asp	Glu	Ile	Ala	Thr	Tyr	Met	Val	Glu	His	Asp	Phe	Ile
50					55					60					
Leu	Gln	Ala	Glu	Arg	Glu	Thr	Phe	Ile	Glu	Gln	Met	Lys	Asp	Val	Met
65				70				75						80	
Asp	Lys	Ala	Glu	Asp	Met	Leu	Ser	Glu	Asp	Thr	Asp	Ala	Asp	Arg	Gly
			85					90					95		
Ser	Asp	Pro	Gly	Thr	Ser	Pro	Pro	His	Leu	Ser	Thr	Cys	Gly	Leu	Gly
			100					105					110		
Thr	Gly	Glu	Glu	Ser	Arg	Gln	Ser	Gln	Ala	Asn	Ala	Pro	Val	Tyr	Gln
	115					120						125			
Gln	Asn	Val	Leu	His	Thr	Gly	Lys	Arg	Trp	Phe	Ile	Ile	Cys	Pro	Val
130					135					140					
Pro	Glu	Pro	Pro	Ala	Pro	Glu	Gly	Pro							
145					150										

<210> 3217

<211> 2570

<212> DNA

<213> Homo sapiens

<400> 3217

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120
accatacca ggactatga gctttacagg cgctgcaaac tggaggaaat gggctttaca
180
gatgtgggccc cagaaaacaa gccagtcagt gttcaagaga cctatgaagc caaaagacat
240
gagttccatg gtgaacgtca gaggaaggaa gaagaaatga aacagatgtt tgtgcagcga
300
gtaaaggaga aagaagccat attgaaagaa gctgagagag agctacaggc caaatgtgag
360
caccttaaga gacttcacca agaagagaga atgaagcttg aagaacaaag aagacttttg
420
gaagaagaaa taattgcttt ctctaaaaag aaagctacct ccgagatatt tcacagccag
480
tcctttctgg caacaggcag caacctgagt aaggacaagg accataagaa ctccaatttt
540
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600
aaaactagaa gtgtgctttg attttgctgt tatttgtttt atcacttcta tatttggtga
660
acagccacag ttactgatat ttatggaaaa gtactttcaa gtacaaggtc aatacataag
720
ccagagtga tgaactaca agttgagcat ctctaattca aaaatctgaa atccagaagc
780
ttcaaaatct gaatcttttt gagcactgac ttgacccac aagtggaaaa ttccccaccc
840
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900
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960
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1080
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1140
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1200
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1320
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1560
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 2340
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 2460
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<210> 3218

<211> 181

<212> PRT

<213> Homo sapiens

<400> 3218

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Glu	Asn	His	Cys	Asp	Phe	Val	Lys	Leu	Arg	Glu	Met	Leu	Ile	Cys	Thr
			20					25					30		
Asn	Met	Glu	Asp	Leu	Arg	Glu	Gln	Thr	His	Thr	Arg	His	Tyr	Glu	Leu
		35					40					45			
Tyr	Arg	Arg	Cys	Lys	Leu	Glu	Glu	Met	Gly	Phe	Thr	Asp	Val	Gly	Pro
		50				55					60				
Glu	Asn	Lys	Pro	Val	Ser	Val	Gln	Glu	Thr	Tyr	Glu	Ala	Lys	Arg	His
65					70					75				80	
Glu	Phe	His	Gly	Glu	Arg	Gln	Arg	Lys	Glu	Glu	Glu	Met	Lys	Gln	Met
			85					90						95	
Phe	Val	Gln	Arg	Val	Lys	Glu	Lys	Glu	Ala	Ile	Leu	Lys	Glu	Ala	Glu
			100				105					110			
Arg	Glu	Leu	Gln	Ala	Lys	Phe	Glu	His	Leu	Lys	Arg	Leu	His	Gln	Glu

	115		120		125	
Glu	Arg	Met	Lys	Leu	Glu	Glu
	130		135		140	
Ile	Ala	Phe	Ser	Lys	Lys	Ala
145			150		155	160
Ser	Phe	Leu	Ala	Thr	Gly	Ser
		165		170		175
Asn	Ser	Asn	Phe	Leu		
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<210> 3219

<211> 1241

<212> DNA

<213> Homo sapiens

<400> 3219

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1080
gcctcttct ccttgctgc cttccttccg accaccaca gccctccagg gcctcagcaa
1140

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 1200
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 1241

<210> 3220
 <211> 413
 <212> PRT
 <213> Homo sapiens

<400> 3220
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 35 40 45
 Asp Glu Leu Pro Asn Gln Asp Gly His Ser Ala Gly Ser Met Gly Thr
 50 55 60
 Leu Ser Ser Leu Asp Gly Val Thr Asn Ile Ser Glu Gly Gly Tyr Pro
 65 70 75 80
 Glu Ala Leu Ser Pro Leu Thr Asn Gly Leu Asp Lys Ser Tyr Pro Met
 85 90 95
 Glu Pro Met Val Asn Gly Gly Gly Tyr Pro Tyr Glu Ser Ala Ser Arg
 100 105 110
 Ala Gly Pro Ala His Ala Gly His Thr Ala Pro Met Arg Pro Ser Tyr
 115 120 125
 Ser Ala Gln Glu Gly Leu Ala Gly Tyr Gln Arg Glu Gly Pro His Pro
 130 135 140
 Ala Trp Pro Gln Pro Val Thr Thr Ser His Tyr Ala His Asp Pro Ser
 145 150 155 160
 Gly Met Phe Arg Ser Gln Ser Phe Ser Glu Ala Glu Pro Gln Leu Pro
 165 170 175
 Pro Ala Pro Val Arg Gly Gly Ser Ser Arg Glu Ala Val Gln Arg Gly
 180 185 190
 Leu Asn Ser Trp Gln Gln Gln Gln Gln Gln Gln Gln Pro Arg Pro
 195 200 205
 Pro Pro Arg Gln Gln Glu Arg Ala His Leu Glu Ser Leu Val Ala Ser
 210 215 220
 Arg Pro Ser Pro Gln Pro Leu Ala Glu Thr Pro Ile Pro Ser Leu Pro
 225 230 235 240
 Glu Phe Pro Arg Ala Ala Ser Gln Gln Glu Ile Glu Gln Ser Ile Glu
 245 250 255
 Thr Leu Asn Met Leu Met Leu Asp Leu Glu Pro Ala Ser Ala Ala Ala
 260 265 270
 Pro Leu His Lys Ser Gln Ser Val Pro Gly Ala Trp Pro Gly Ala Ser
 275 280 285
 Pro Leu Ser Ser Gln Pro Leu Ser Gly Ser Ser Arg Gln Ser His Pro
 290 295 300
 Leu Thr Gln Ser Arg Ser Gly Tyr Ile Pro Ser Gly His Ser Leu Gly
 305 310 315 320
 Thr Pro Glu Pro Ala Pro Arg Ala Ser Leu Glu Ser Val Pro Pro Gly
 325 330 335
 Arg Ser Tyr Ser Pro Tyr Asp Tyr Gln Pro Cys Leu Ala Gly Pro Asn

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<210> 3221
<211> 1585
<212> DNA
<213> Homo sapiens
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2428

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 1260
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 1320
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 1380
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 1440
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 1560
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<210> 3222

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3222

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Trp	Val	Glu	Glu	Pro	Gln	Arg	Ser	Cys	Thr	Ala	Arg	Arg	Trp	His	Ile
			20					25					30		
Gln	Ala	Thr	Gly	Gly	Val	Glu	Pro	Ala	Gly	Trp	Lys	Glu	Met	Arg	Cys
			35					40				45			
His	Leu	Arg	Ala	Asn	Gly	Tyr	Leu	Cys	Lys	Tyr	Gln	Phe	Glu	Val	Leu
	50				55					60					
Cys	Pro	Ala	Pro	Arg	Pro	Gly	Ala	Ala	Ser	Asn	Leu	Ser	Tyr	Arg	Ala
65				70						75				80	
Pro	Phe	Gln	Leu	His	Ser	Ala	Ala	Leu	Asp	Phe	Ser	Pro	Pro	Gly	Thr
			85					90						95	
Glu	Val	Ser	Ala	Leu	Cys	Arg	Gly	Gln	Leu	Pro	Ile	Ser	Val	Thr	Cys
			100					105					110		
Ile	Ala	Asp	Glu	Ile	Gly	Ala	Arg	Trp	Asp	Lys	Leu	Ser	Gly	Asp	Val
			115				120					125			
Leu	Cys	Pro	Cys	Pro	Gly	Arg	Tyr	Leu	Arg	Ala	Gly	Lys	Cys	Ala	Glu
	130				135						140				
Leu	Pro	Asn	Cys	Leu	Asp	Asp	Leu	Gly	Gly	Phe	Ala	Cys	Glu	Cys	Ala
145				150						155				160	
Thr	Gly	Phe	Glu	Leu	Gly	Lys	Asp	Gly	Arg	Ser	Cys	Val	Thr	Ser	Gly
			165					170					175		
Glu	Gly	Gln	Pro	Thr	Leu	Gly	Gly	Thr	Gly	Val	Pro	Thr	Arg	Arg	Pro
			180					185					190		
Pro	Ala	Thr	Ala	Thr	Ser	Pro	Val	Pro	Gln	Arg	Thr	Trp	Pro	Ile	Arg
			195				200					205			
Val	Asp	Glu	Lys	Leu	Gly	Glu	Thr	Pro	Leu	Val	Pro	Glu	Gln	Asp	Asn
	210				215						220				
Ser	Val	Thr	Ser	Ile	Pro	Glu	Ile	Pro	Arg	Trp	Gly	Ser	Gln	Ser	Thr
225				230						235				240	
Met	Ser	Thr	Leu	Gln	Met	Ser	Leu	Gln	Ala	Glu	Ser	Lys	Ala	Thr	Ile

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<210> 3223
<211> 985
<212> DNA
<213> Homo sapiens
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<210> 3224

<211> 224
 <212> PRT
 <213> Homo sapiens

<400> 3224
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 Ser Asn Pro Asp Ser Leu Ile Phe Gly Ala Leu Thr Ile Met Thr Gly
 20 25 30
 Val Ile Gly Val Ile Leu Gly Ala Glu Ala Ser Arg Arg Tyr Lys Lys
 35 40 45
 Val Ile Pro Gly Ala Glu Pro Leu Ile Cys Ala Ser Ser Leu Leu Ala
 50 55 60
 Thr Ala Pro Cys Leu Tyr Leu Ala Leu Val Leu Ala Pro Thr Thr Leu
 65 70 75 80
 Leu Ala Ser Tyr Val Phe Leu Gly Leu Gly Glu Leu Leu Leu Ser Cys
 85 90 95
 Asn Trp Ala Val Val Ala Asp Ile Leu Leu Ser Val Val Val Pro Arg
 100 105 110
 Cys Arg Gly Thr Ala Glu Ala Leu Gln Ile Thr Val Gly His Ile Leu
 115 120 125
 Gly Asp Ala Gly Ser Pro Tyr Leu Thr Gly Leu Ile Ser Ser Val Leu
 130 135 140
 Arg Pro Gly Ala Leu Thr Pro Leu Gln Arg Phe Arg Ser Leu Gln Gln
 145 150 155 160
 Ser Phe Leu Cys Cys Ala Phe Val Ile Ala Leu Gly Gly Gly Cys Phe
 165 170 175
 Leu Leu Thr Ala Leu Tyr Leu Glu Arg Asp Glu Thr Arg Ala Trp Gln
 180 185 190
 Pro Val Thr Gly Thr Pro Asp Ser Asn Asp Val Asp Ser Asn Asp Leu
 195 200 205
 Glu Arg Gln Gly Leu Leu Ser Gly Ala Gly Ala Ser Thr Glu Glu Pro
 210 215 220

<210> 3225
 <211> 506
 <212> DNA
 <213> Homo sapiens

<400> 3225
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 gcagtcgaaa ttctttctga accccatata ggatgaaggt tatatttcca aaattaaaac
 120
 agaggaacat tttaaatggc ctacgtccat gcaccttctt tattcaagaa gctaccaaga
 180
 attctgcctg tttccagtc cctaaaatgc ctgtgccatg tgccctgggt gaagaactag
 240
 tcccatgcca caggggtaca ggccccgctg tagtttgccc agcccaaccg cagcaagggg
 300
 aagtgaacc acagcctcaa cccacacaga ggatggaacc accttctgca gctaaaaata
 360
 accacaccgc ctttgaggtg agccacccaa gatgcaggtg gggctgtatg aaactccacg
 420

aacatgggat gagtttcatt ttcagggttc cgaggggccca tgagtgggtac caagatccct
 480
 ggaggtgccc ttggtttccc atgtag
 506

<210> 3226
 <211> 137
 <212> PRT
 <213> Homo sapiens

<400> 3226
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 Leu Arg Pro Cys Thr Phe Phe Ile Gln Glu Ala Thr Lys Asn Ser Ala
 20 25 30
 Cys Phe Pro Val Pro Lys Met Pro Val Pro Cys Ala Leu Gly Glu Glu
 35 40 45
 Leu Val Pro Cys His Arg Gly Thr Gly Pro Ala Val Val Trp Pro Ala
 50 55 60
 Gln Pro Gln Gln Gly Glu Val Glu Pro Gln Pro Gln Pro Thr Gln Arg
 65 70 75 80
 Met Glu Pro Pro Ser Ala Ala Lys Asn Asn His Thr Ala Phe Glu Val
 85 90 95
 Ser His Pro Arg Cys Arg Trp Gly Cys Met Lys Leu His Glu His Gly
 100 105 110
 Met Ser Phe Ile Phe Arg Val Pro Arg Gly His Glu Trp Tyr Gln Asp
 115 120 125
 Pro Trp Arg Cys Pro Trp Phe Pro Met
 130 135

<210> 3227
 <211> 1623
 <212> DNA
 <213> Homo sapiens

<400> 3227
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 agactgagag aggaaaggat agaggaagtg ctgccctagg ctgcatgagt cgaagcaagc
 120
 gtgtttcctt cccgccaggc aagtgccctt agaaaccggg ccccgcccc ttcttggeet
 180
 gcattcccat cccctctccc ggggcggagg tgaggacctc cttggttctt ttggttctgt
 240
 cagtgagccc cttccttggc catgaagctc gtgaggaaga acatcgagaa ggacaatgcg
 300
 ggccaggtga ccctggtccc cgaggagcct gaggacatgt ggcacactta caacctcgtg
 360
 caggtgggcg acagcctgcg cgcctccacc atccgcaagg tacagacaga gtcctccacg
 420
 ggcagcgtgg gcagcaaccg ggtccgcact accctcactc tctgcgtgga ggccatcgac
 480
 ttcgactctc aagcctgccg gctgcgggtt aaggggacca acatccaaga gaatgagtat
 540

gtcaagatgg gggcttacca caccatcgag ctggagccca accgccagtt caccctggcc
 600
 aagaagcagt gggatagtgt ggtactggag cgcacgagc aggcctgtga cccagcctgg
 660
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 720
 cccagcatga ccctcactcg ggccaagggt gaggtgaaca tccctaggaa aaggaaaggc
 780
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 840
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 900
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 960
 ctggaaaacc ggtccaaatt tcttcaggta catgcctcct ccggacacaa gtactcctg
 1020
 aaagaggccc tttgtgacct tactgtggct agccgccttt cagacactaa agctgctggg
 1080
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 1200
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 1260
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 1320
 gaacagctca gccagttgac tggggtagct gccattctcc gcttccctgt tcccgaactt
 1380
 tctgaccaag agggtgattc cagttctgaa gaggattaat gattgaaact taaaattgag
 1440
 acaatcttgt gtttcctaaa ctgttacagt acatttctca gcattcctgt gacagaaagc
 1500
 tgcaagaatg gcactttttg attcatacag ggatttctta tgtctttggc tacactagat
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 1620
 aaa
 1623

<210> 3228

<211> 385

<212> PRT

<213> Homo sapiens

<400> 3228

Met Lys Leu Val Arg Lys Asn Ile Glu Lys Asp Asn Ala Gly Gln Val
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 Thr Leu Val Pro Glu Glu Pro Glu Asp Met Trp His Thr Tyr Asn Leu
 20 25 30
 Val Gln Val Gly Asp Ser Leu Arg Ala Ser Thr Ile Arg Lys Val Gln
 35 40 45
 Thr Glu Ser Ser Thr Gly Ser Val Gly Ser Asn Arg Val Arg Thr Thr
 50 55 60
 Leu Thr Leu Cys Val Glu Ala Ile Asp Phe Asp Ser Gln Ala Cys Gln

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<210> 3229
<211> 1008
<212> DNA
<213> Homo sapiens
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<400> 3229
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120
ggccgggctaa ggtgcgcgtg ctgcctgggt ctaacccttc tgttggggct ttctgctgag
180
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aggcgggagg cgctgagagt ctgtgaggag gtccgtggac agactgcttt gctcgttgtt
 240
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 300
 cagccgacca ttatggaaga cggcaagcgg gagaggtggc ccaccctcat ggagcgcttg
 360
 tgctcggatg gcttcgcatt tccccaatac cccattaaac cgtatcatct gaagaggatc
 420
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 480
 gacatcaata agagagacag gaaggaaagg accgccctac atttggcctg tgccactggc
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 600
 gaagacagga cacctctgat caaggctgta caactgaggc aggaggcttg tgcaactctt
 660
 ctgctgcaaa atggcgccga tccaaatatt acggatgtct ttggaaggac tgctctgcac
 720
 tacgctgtgt ataatagaaga tacatccatg atagaaaaac ttctttcaca tggtagaaat
 780
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 840
 gtgaaaatgg tggaaattttt attaaagaaa aaagcaaatg taaatgccat tgattatctt
 900
 ggcagatcag cctcatact tgctgttact cttggagaaa aagatatagt cattcttctt
 960
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 1008

<210> 3230

<211> 232

<212> PRT

<213> Homo sapiens

<400> 3230

Met	Glu	Asp	Gly	Lys	Arg	Glu	Arg	Trp	Pro	Thr	Leu	Met	Glu	Arg	Leu
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Cys	Ser	Asp	Gly	Phe	Ala	Phe	Pro	Gln	Tyr	Pro	Ile	Lys	Pro	Tyr	His
			20					25					30		
Leu	Lys	Arg	Ile	His	Arg	Ala	Val	Leu	Arg	Gly	Asn	Leu	Glu	Glu	Leu
			35				40					45			
Lys	Tyr	Leu	Leu	Leu	Thr	Tyr	Tyr	Asp	Ile	Asn	Lys	Arg	Asp	Arg	Lys
	50					55					60				
Glu	Arg	Thr	Ala	Leu	His	Leu	Ala	Cys	Ala	Thr	Gly	Gln	Pro	Glu	Met
65					70					75					80
Val	His	Leu	Leu	Val	Ser	Arg	Arg	Cys	Glu	Leu	Asn	Leu	Cys	Asp	Arg
				85					90					95	
Glu	Asp	Arg	Thr	Pro	Leu	Ile	Lys	Ala	Val	Gln	Leu	Arg	Gln	Glu	Ala
			100					105					110		
Cys	Ala	Thr	Leu	Leu	Leu	Gln	Asn	Gly	Ala	Asp	Pro	Asn	Ile	Thr	Asp
		115					120					125			
Val	Phe	Gly	Arg	Thr	Ala	Leu	His	Tyr	Ala	Val	Tyr	Asn	Glu	Asp	Thr
	130					135				140					
Ser	Met	Ile	Glu	Lys	Leu	Leu	Ser	His	Gly	Thr	Asn	Ile	Glu	Glu	Cys

145 150 155 160
 Ser Lys Asn Glu Tyr Gln Pro Leu Leu Leu Ala Val Ser Arg Arg Lys
 165 170 175
 Val Lys Met Val Glu Phe Leu Leu Lys Lys Lys Ala Asn Val Asn Ala
 180 185 190
 Ile Asp Tyr Leu Gly Arg Ser Ala Leu Ile Leu Ala Val Thr Leu Gly
 195 200 205
 Glu Lys Asp Ile Val Ile Leu Leu Leu Gln His Asn Ile Asp Val Phe
 210 215 220
 Ser Arg Asp Val Tyr Gly Lys Leu
 225 230

<210> 3231

<211> 1367

<212> DNA

<213> Homo sapiens

<400> 3231

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 120
 taacagtccg ggagccggcc gcgtcgtgag ggggtcggca cggggagtcc ggcggtcttg
 180
 tgcattcttg ctacctgtgg gtccaagatg tcggacatcg gagactgggt caggagcatc
 240
 ccggcgatca cgcgctattg gttcgcgcc accgtcgccg tgcccttggc cggcaaaccc
 300
 ggccatcatca gcccgcccta cctcttcctc tggcccgaag ccttccttta tcgctttcag
 360
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 420
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 480
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 540
 actggcttag caatggatat gcagttgctg atgattcctc tgatcatgtc agtactttat
 600
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 660
 gcctgctatt taccctgggt tatccttgga ttcaactata tcatcgaggc ctcggtaatc
 720
 aatgagctta ttggaaatct ggttgacat ctttattttt tctaagtgtt cagataacca
 780
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 840
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 900
 gatcagaatg gcggaggcgg gagacacaac tggggccagg gctttcgact tggagaccag
 960
 tgaaggggcg gcctcgggca gccgtcctc tcaagccaca tttcctcca gtgctgggtg
 1020
 cacttaacaa ctgcgttctg gctaacactg ttggacctga ccacactga atgtagtctt
 1080

tcagtagcag acaaagtttc ttaaattccc aagaaaaata taagtgttcc acaagtttca
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 1200
 actgactaca ttttttggtg tttttttttt tcccccttcc gttctgaata atgggtttta
 1260
 ggggttccta gtctgctggc attgagctgg ggctgggtca ccaaaccctt cccaaaagga
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 1367

<210> 3232

<211> 251

<212> PRT

<213> Homo sapiens

<400> 3232

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Tyr	Trp	Phe	Ala	Ala	Thr	Val	Ala	Val	Pro	Leu	Val	Gly	Lys	Leu	Gly
			20					25					30		
Leu	Ile	Ser	Pro	Ala	Tyr	Leu	Phe	Leu	Trp	Pro	Glu	Ala	Phe	Leu	Tyr
		35					40					45			
Arg	Phe	Gln	Ile	Trp	Arg	Pro	Ile	Thr	Ala	Thr	Phe	Tyr	Phe	Pro	Val
	50					55					60				
Gly	Pro	Gly	Thr	Gly	Phe	Leu	Tyr	Leu	Val	Asn	Leu	Tyr	Phe	Leu	Tyr
65					70					75				80	
Gln	Tyr	Ser	Thr	Arg	Leu	Glu	Thr	Gly	Ala	Phe	Asp	Gly	Arg	Pro	Ala
			85						90					95	
Asp	Tyr	Leu	Phe	Met	Leu	Leu	Phe	Asn	Trp	Ile	Cys	Ile	Val	Ile	Thr
		100						105					110		
Gly	Leu	Ala	Met	Asp	Met	Gln	Leu	Leu	Met	Ile	Pro	Leu	Ile	Met	Ser
		115				120						125			
Val	Leu	Tyr	Val	Trp	Ala	Gln	Leu	Asn	Arg	Asp	Met	Ile	Val	Ser	Phe
	130					135					140				
Trp	Phe	Gly	Thr	Arg	Phe	Lys	Ala	Cys	Tyr	Leu	Pro	Trp	Val	Ile	Leu
145					150					155				160	
Gly	Phe	Asn	Tyr	Ile	Ile	Gly	Gly	Ser	Val	Ile	Asn	Glu	Leu	Ile	Gly
			165					170						175	
Asn	Leu	Val	Gly	His	Leu	Tyr	Phe	Phe	Leu	Met	Phe	Arg	Tyr	Pro	Met
		180						185					190		
Asp	Leu	Gly	Gly	Arg	Asn	Phe	Leu	Ser	Thr	Pro	Gln	Phe	Leu	Tyr	Arg
	195					200						205			
Trp	Leu	Pro	Ser	Arg	Arg	Gly	Gly	Val	Ser	Gly	Phe	Gly	Val	Pro	Pro
	210					215					220				
Ala	Ser	Met	Arg	Arg	Ala	Ala	Asp	Gln	Asn	Gly	Gly	Gly	Gly	Arg	His
225					230					235				240	
Asn	Trp	Gly	Gln	Gly	Phe	Arg	Leu	Gly	Asp	Gln					
			245					250							

<210> 3233

<211> 975

<212> DNA

<213> Homo sapiens

<400> 3233
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 120
 atgacaattt tcacatctcc cgcttccccc tccaaagagt tctacttgtc caattctgaa
 180
 aaggaacggt atgaaaaaga attcagccaa gaaagacaac aagaaatttt gagaagagca
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 360
 aagatggatc atccctgtcc ttgggtgaat aactgtgtgg gatTTTttaa ttacaaattc
 420
 ttccctgctgt ttttattgta ttccctatta tattgccttt tcgtggccgc acagttttag
 480
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 540
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 720
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 780
 aaggatcagc acggtctggg gccaggtgg ggtggaacac gcacggtcca caagcaattc
 840
 tgtctttctc aaggcttttt cttgtgcagt atgaaatcct tcatatttca tatgaagtat
 900
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 960
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 975

<210> 3234
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 3234
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 Glu Asn Gly Lys Thr Val Val Tyr Leu Val Ala Phe His Leu Phe Phe
 20 25 30
 Val Met Phe Val Trp Ser Tyr Trp Met Thr Ile Phe Thr Ser Pro Ala
 35 40 45
 Ser Pro Ser Lys Glu Phe Tyr Leu Ser Asn Ser Glu Lys Glu Arg Tyr
 50 55 60
 Glu Lys Glu Phe Ser Gln Glu Arg Gln Gln Glu Ile Leu Arg Arg Ala
 65 70 75 80
 Ala Arg Ala Leu Pro Ile Tyr Thr Thr Ser Ala Ser Lys Thr Ile Arg

				85						90					95				
Tyr	Cys	Glu	Lys	Cys	Gln	Leu	Ile	Lys	Pro	Asp	Arg	Ala	His	His	Cys				
				100						105				110					
Ser	Ala	Cys	Asp	Ser	Cys	Ile	Leu	Lys	Met	Asp	His	Pro	Cys	Pro	Trp				
		115					120					125							
Val	Asn	Asn	Cys	Val	Gly	Phe	Ser	Asn	Tyr	Lys	Phe	Phe	Leu	Leu	Phe				
		130				135					140								
Leu	Leu	Tyr	Ser	Leu	Leu	Tyr	Cys	Leu	Phe	Val	Ala	Ala	Gln	Phe					
145					150					155									

<210> 3235

<211> 551

<212> DNA

<213> Homo sapiens

<400> 3235

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120
gcagtacaag ttagtatgaa gcatgagatt gaacttgcca tgaagttgct ggagaaagat
180
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240
attaacatag agatgtatca aaagttgcag gggttctgaag atggcttgaa agaaaaaat
300
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360
gaacaaagat tgcagcaagc agagaaggcg caaatggaag ctgaagatga ggatgagaaa
420
tatctacaag aatgtctcag taaatctgat agtctgcaga aacaaatctc ccaaaggag
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540
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551

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<210> 3236

<211> 183

<212> PRT

<213> Homo sapiens

<400> 3236

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Glu	Met	Tyr	Asn	Glu	Ala	Arg	Arg	Gln	Leu	Arg	Asp	Glu	Ser	Gln	Leu				
			20					25					30						
Arg	Gln	Asp	Val	Glu	Asn	Glu	Leu	Ala	Val	Gln	Val	Ser	Met	Lys	His				
		35				40					45								
Glu	Ile	Glu	Leu	Ala	Met	Lys	Leu	Leu	Glu	Lys	Asp	Ile	His	Glu	Lys				
	50				55				60										
Gln	Asp	Thr	Leu	Ile	Gly	Leu	Arg	Gln	Gln	Leu	Glu	Glu	Val	Lys	Ala				
65				70				75					80						
Ile	Asn	Ile	Glu	Met	Tyr	Gln	Lys	Leu	Gln	Gly	Ser	Glu	Asp	Gly	Leu				

	85		90		95										
Lys	Glu	Lys	Asn	Glu	Ile	Ile	Ala	Arg	Leu	Glu	Glu	Lys	Thr	Asn	Lys
	100		105		110										
Ile	Thr	Ala	Ala	Met	Arg	Gln	Leu	Glu	Gln	Arg	Leu	Gln	Gln	Ala	Glu
	115		120		125										
Lys	Ala	Gln	Met	Glu	Ala	Glu	Asp	Glu	Asp	Glu	Lys	Tyr	Leu	Gln	Glu
	130		135		140										
Cys	Leu	Ser	Lys	Ser	Asp	Ser	Leu	Gln	Lys	Gln	Ile	Ser	Gln	Lys	Glu
145			150		155										160
Lys	Gln	Leu	Val	Gln	Leu	Glu	Thr	Asp	Leu	Lys	Ile	Glu	Lys	Glu	Trp
	165		170		175										
Arg	Gln	Thr	Leu	Gln	Glu	Asp									
	180														

<210> 3237

<211> 1323

<212> DNA

<213> Homo sapiens

<400> 3237

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120
gatgaggacc gttgggaagt acggggggac cgcaaggccc ggaagcccct ggtggagaag
180
aagcgacgcg cgcgatcaa cgagagtctt caggagtgc ggctgctgct ggcgggcgcc
240
gaggtgcagg ccaagctgga gaacgccgaa gtgctggagc tgacgggtgcg gcgggtccag
300
ggtgtgctgc ggggccgggc gcgcgagcgc gacgagctgc aggcggaagc gagcgagcgc
360
ttcgctgccg gctacatcca gtgcatgcac gaggtgcaca cgttcgtgtc cactgtccag
420
gccatcgacg ctaccgtcgc tgccgagctc ctgaaccatc tgctcgagtc catgccgctg
480
cgtgagggca gcagcttcca ggatctgctg ggggacgccc tggcggggcc acctagagcc
540
cctggacgga gtggctggcc tgccgggggc gctccgggat cccaataacc cagccccccg
600
ggtcctgggg acgacctgtg ctccgacctg gaggaggccc ctgaggctga actgagtcag
660
gctcctgctg aggggcccga cttggtgccc gcagccctgg gcagcctgac cacagcccaa
720
attgcccgga gtgtctggag gccttggtga ccaatgccag ccagagtcct gcgggggtgg
780
gcccgccct ccctggatct cctccctcct ccagggggtt .cagatgtggt ggggtagggc
840
cctggaagtc tcccaggtct tccctccctc ctctgatgga tggttgagc ggcagccctc
900
ggtaaccagc ccagtcaggc ccagccccg tttcttaaga aacttttagg gaccctgcag
960
ctctggagtg ggtggaggga gggagctacg ggcaggagga agaattttgt agagctgcc
1020

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gcgctctccc aggttcaccc acccaggctt caccagccct gtgcgggctc tgggggcaga
 1080
 ggtggcagaa atggtgctgg gcactagtgt tccaggcagc cctgggctaa acaaaagctt
 1140
 gaacttgcca cttcagcggg gagatgagag gcaggtgcac tcagctgcac tgcccagagc
 1200
 tgtgatgctc tgtacatctt gttttagca cacttgagtt tgtgtattcc attgacatca
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 aatgtgacaa ttttactaaa taaagaattt tggagttagt tacccttgaa aaaaaagtcg
 1320
 acg
 1323

<210> 3238

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3238

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Gly	Ala	Gly	Leu	Arg	Ala	Leu	Trp	Thr	Met	Ala	Pro	Pro	Ala	Ala	Pro
			20					25					30		
Gly	Arg	Asp	Arg	Val	Gly	Arg	Glu	Asp	Glu	Asp	Arg	Trp	Glu	Val	Arg
		35					40					45			
Gly	Asp	Arg	Lys	Ala	Arg	Lys	Pro	Leu	Val	Glu	Lys	Lys	Arg	Arg	Ala
	50					55				60					
Arg	Ile	Asn	Glu	Ser	Leu	Gln	Glu	Leu	Arg	Leu	Leu	Leu	Ala	Gly	Ala
65					70				75					80	
Glu	Val	Gln	Ala	Lys	Leu	Glu	Asn	Ala	Glu	Val	Leu	Glu	Leu	Thr	Val
				85				90						95	
Arg	Arg	Val	Gln	Gly	Val	Leu	Arg	Gly	Arg	Ala	Arg	Glu	Arg	Glu	Gln
		100						105					110		
Leu	Gln	Ala	Glu	Ala	Ser	Glu	Arg	Phe	Ala	Ala	Gly	Tyr	Ile	Gln	Cys
		115					120					125			
Met	His	Glu	Val	His	Thr	Phe	Val	Ser	Thr	Cys	Gln	Ala	Ile	Asp	Ala
		130				135				140					
Thr	Val	Ala	Ala	Glu	Leu	Leu	Asn	His	Leu	Leu	Glu	Ser	Met	Pro	Leu
145					150					155				160	
Arg	Glu	Gly	Ser	Ser	Phe	Gln	Asp	Leu	Leu	Gly	Asp	Ala	Leu	Ala	Gly
				165				170						175	
Pro	Pro	Arg	Ala	Pro	Gly	Arg	Ser	Gly	Trp	Pro	Ala	Gly	Gly	Ala	Pro
		180					185						190		
Gly	Ser	Pro	Ile	Pro	Ser	Pro	Pro	Gly	Pro	Gly	Asp	Asp	Leu	Cys	Ser
		195					200					205			
Asp	Leu	Glu	Glu	Ala	Pro	Glu	Ala	Glu	Leu	Ser	Gln	Ala	Pro	Ala	Glu
	210					215					220				
Gly	Pro	Asp	Leu	Val	Pro	Ala	Ala	Leu	Gly	Ser	Leu	Thr	Thr	Ala	Gln
225					230					235					240
Ile	Ala	Arg	Ser	Val	Trp	Arg	Pro	Trp							
				245											

<210> 3239

<211> 432

<212> DNA

<213> Homo sapiens

<400> 3239

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120
ggtttgttcc tccttttctt cgttctgcgg gtccgaagca atgtgctaaa gggtgctatc
180
caggaccgcg taggtctcct ttaccagttt gtgggcgcca ccccgtaac aggcattgctg
240
aacgctgtga atctgtttcc cgtgctgcga gctgtcagcg accaggagag tcaggacggc
300
ctctaccaga agtggcagat gatgctggcc tatgcactgc acgtcctccc cttcagcggt
360
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420
gcccgattgg gt
432

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<210> 3240

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3240

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Lys Thr Lys Asp Ser Pro Gly Val Phe Ser Lys Leu Gly Val Leu Leu
 1           5           10           15
Arg Arg Val Thr Arg Asn Leu Val Arg Asn Lys Leu Ala Val Ile Thr
 20           25           30
Arg Leu Leu Gln Asn Leu Ile Met Gly Leu Phe Leu Leu Phe Phe Val
 35           40           45
Leu Arg Val Arg Ser Asn Val Leu Lys Gly Ala Ile Gln Asp Arg Val
 50           55           60
Gly Leu Leu Tyr Gln Phe Val Gly Ala Thr Pro Tyr Thr Gly Met Leu
 65           70           75           80
Asn Ala Val Asn Leu Phe Pro Val Leu Arg Ala Val Ser Asp Gln Glu
 85           90           95
Ser Gln Asp Gly Leu Tyr Gln Lys Trp Gln Met Met Leu Ala Tyr Ala
100          105          110
Leu His Val Leu Pro Phe Ser Val Val Ala Thr Met Ile Phe Ser Ser
115          120          125
Val Cys Tyr Trp Thr Leu Gly Leu His Pro Glu Val Ala Arg Leu Gly
130          135          140

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<210> 3241

<211> 492

<212> DNA

<213> Homo sapiens

<400> 3241

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 120
 gggccaaaat cccctcttgt gtctccagaa gtatttgaaa aatacgttag gatctgcctc
 180
 acagacatgc tcccaggaca ctcgacagca aggaggtacg gcgggcccag ccagccaagg
 240
 cagaggagga catcactgcc acagcagggg gcctgactgg cagcaaaagg gacgactccg
 300
 gcgaaaagtc agcaggaaac aggacagggg ctggaccaat ggctccctc agccccacac
 360
 cccaccagg caggagcggg gcctggcccg gggcaggcgg gtgggagagc tctactgagt
 420
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 480
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 492

<210> 3242

<211> 107

<212> PRT

<213> Homo sapiens

<400> 3242

Met	Gly	Gln	Asn	Pro	Leu	Leu	Cys	Leu	Gln	Lys	Tyr	Leu	Lys	Asn	Thr
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Leu	Gly	Ser	Ala	Ser	Gln	Thr	Cys	Ser	Gln	Asp	Thr	Arg	Gln	Gln	Gly
			20					25					30		
Gly	Thr	Ala	Gly	Pro	Ala	Ser	Gln	Gly	Arg	Gly	Gly	His	His	Cys	His
		35					40					45			
Ser	Arg	Gly	Pro	Asp	Trp	Gln	Gln	Lys	Gly	Arg	Leu	Arg	Arg	Lys	Val
	50					55					60				
Ser	Arg	Lys	Gln	Asp	Arg	Gly	Trp	Thr	Asn	Gly	Leu	Pro	Gln	Pro	His
65					70					75				80	
Thr	Pro	Pro	Arg	Gln	Glu	Arg	Cys	Leu	Ala	Arg	Gly	Arg	Arg	Val	Gly
				85					90					95	
Glu	Leu	Thr	Glu	Trp	Ala	Ala	Gly	His	Gly	Pro					
			100					105							

<210> 3243

<211> 944

<212> DNA

<213> Homo sapiens

<400> 3243

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 120
 tttgaggcaa aggtaaccca gaatctccca atgaaagaag gctgcacaga ggtctctctc
 180
 cttcagtttg ggtggtctgt tgatttttcc cgtccacagc ttggtgaaga tgaattctct
 240
 tacggtttcg atggacgagg actcaaggca gaaaatggac aatttgagga atttggccag
 300

acttttgggg agaatgatgt tattggctgc tttgctaatt ttgagactga agaagtagaa
 360
 ctttccttct ccaagaatgg agaagaccta ggtgtggcat tctggatcag caaggattcc
 420
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 480
 ttcggtcaga aggaggagcc cttcttccca ccaccagaag agtttgtgtt cattcatgct
 540
 gtgcctgttg aggagcgtgt acgcactgca gtccctccca agaccataga ggaatgtgag
 600
 gtgattctga tgggtgggact acccggatct ggaaagaccc agtgggcact gaaatattgca
 660
 aaagaaaacc ctgagaaaag atacaatgtc ctggggagctg agactgtgct caatcaaagt
 720
 aggatgaagg gtctcgagga gccagagatg gaccccaaaa gccgagacct tttagtccag
 780
 caagcctccc agtgccttag taagctggtc cagattgctt cccggacaaa gaggaacttt
 840
 attcttgatc agtgtaatgt gtacaattct ggccaacggc ggaagctatt gctgttcaag
 900
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 944

<210> 3244

<211> 314

<212> PRT

<213> Homo sapiens

<400> 3244

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Phe	Ser	Glu	Lys	Phe	Pro	Thr	Leu	Trp	Ser	Gly	Ala	Arg	Ser	Thr	Tyr
		20					25					30			
Gly	Val	Thr	Lys	Gly	Lys	Val	Cys	Phe	Glu	Ala	Lys	Val	Thr	Gln	Asn
	35					40						45			
Leu	Pro	Met	Lys	Glu	Gly	Cys	Thr	Glu	Val	Ser	Leu	Leu	Arg	Val	Gly
	50				55					60					
Trp	Ser	Val	Asp	Phe	Ser	Arg	Pro	Gln	Leu	Gly	Glu	Asp	Glu	Phe	Ser
65			70					75				80			
Tyr	Gly	Phe	Asp	Gly	Arg	Gly	Leu	Lys	Ala	Glu	Asn	Gly	Gln	Phe	Glu
			85				90					95			
Glu	Phe	Gly	Gln	Thr	Phe	Gly	Glu	Asn	Asp	Val	Ile	Gly	Cys	Phe	Ala
	100					105						110			
Asn	Phe	Glu	Thr	Glu	Glu	Val	Glu	Leu	Ser	Phe	Ser	Lys	Asn	Gly	Glu
	115					120						125			
Asp	Leu	Gly	Val	Ala	Phe	Trp	Ile	Ser	Lys	Asp	Ser	Leu	Ala	Asp	Arg
	130				135					140					
Ala	Leu	Leu	Pro	His	Val	Leu	Cys	Lys	Asn	Cys	Val	Val	Glu	Leu	Asn
145			150						155					160	
Phe	Gly	Gln	Lys	Glu	Glu	Pro	Phe	Phe	Pro	Pro	Pro	Glu	Glu	Phe	Val
		165				170						175			
Phe	Ile	His	Ala	Val	Pro	Val	Glu	Glu	Arg	Val	Arg	Thr	Ala	Val	Pro
	180					185						190			
Pro	Lys	Thr	Ile	Glu	Glu	Cys	Glu	Val	Ile	Leu	Met	Val	Gly	Leu	Pro

195	200	205
Gly Ser Gly Lys Thr Gln Trp Ala Leu Lys Tyr Ala Lys Glu Asn Pro		
210	215	220
Glu Lys Arg Tyr Asn Val Leu Gly Ala Glu Thr Val Leu Asn Gln Met		
225	230	235
Arg Met Lys Gly Leu Glu Glu Pro Glu Met Asp Pro Lys Ser Arg Asp		
245	250	255
Leu Leu Val Gln Gln Ala Ser Gln Cys Leu Ser Lys Leu Val Gln Ile		
260	265	270
Ala Ser Arg Thr Lys Arg Asn Phe Ile Leu Asp Gln Cys Asn Val Tyr		
275	280	285
Asn Ser Gly Gln Arg Arg Lys Leu Leu Leu Phe Lys Thr Phe Ser Arg		
290	295	300
Lys Val Val Val Val Val Pro Asn Glu Glu		
305	310	

<210> 3245

<211> 980

<212> DNA

<213> Homo sapiens

<400> 3245

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 120
 ccaaccacgc agggcctctg agagacaagg tacatcccat gattctagca caggaagaag
 180
 acgacgtcct gggagaggaa gcacaaggca gcccgcacga tatcatcaga ataggtgtgg
 240
 cggggcgccc tgctcctggc agactacatc ctgttccgac aggacctctt ccgaggatgt
 300
 acagcgctgg agctcggggc cggcacgggg ctcgctagca tcatcgagc caccatggca
 360
 cggaccgttt attgtacaga tgtcgttgca gatcttttgt ccatgtgcca gcgaaacatt
 420
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 480
 tggctgaagg acgacctctg cacagatccc aaggtcccct tcagttggtc acaagaggaa
 540
 atttctgacc tgtacgatca caccaccatc ctgtttgcag ccgaagtgtt ttacgacgac
 600
 gacttgactg atgctgtgtt taaaacgctc tcccgactcg cccacagatt gaaaaatgcc
 660
 tgcacagcca tactgtcggg ggagaagagg ctcaacttca cactgagaca cttggacgct
 720
 acatgtgaag cctacgatca cttccgctcc tgctgcacg cgctggagca gctcacagat
 780
 ggcaagctgc gcttcgtggg ggagcccgtg gaggcctcct tcccacagct cctggtttac
 840
 gagcgctcc agcagctgga gctctggaag atcatcgag aaccagtaac atgacccatc
 900
 gcctccacca ggcgcggcgt ctcgactgtt cttagagtgt atttctagta aaatcagaag
 960

ctcaccaaag caaaaaaaaaa
980

<210> 3246

<211> 219

<212> PRT

<213> Homo sapiens

<400> 3246

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Val Trp Arg Gly Ala Leu Leu Leu Ala Asp Tyr Ile Leu Phe Arg Gln
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Asp Leu Phe Arg Gly Cys Thr Ala Leu Glu Leu Gly Ala Gly Thr Gly
      20             25             30
Leu Ala Ser Ile Ile Ala Ala Thr Met Ala Arg Thr Val Tyr Cys Thr
      35             40             45
Asp Val Gly Ala Asp Leu Leu Ser Met Cys Gln Arg Asn Ile Ala Leu
      50             55             60
Asn Ser His Leu Ala Ala Thr Gly Gly Gly Ile Val Arg Val Lys Glu
      65             70             75             80
Leu Asp Trp Leu Lys Asp Asp Leu Cys Thr Asp Pro Lys Val Pro Phe
      85             90             95
Ser Trp Ser Gln Glu Glu Ile Ser Asp Leu Tyr Asp His Thr Thr Ile
      100            105            110
Leu Phe Ala Ala Glu Val Phe Tyr Asp Asp Asp Leu Thr Asp Ala Val
      115            120            125
Phe Lys Thr Leu Ser Arg Leu Ala His Arg Leu Lys Asn Ala Cys Thr
      130            135            140
Ala Ile Leu Ser Val Glu Lys Arg Leu Asn Phe Thr Leu Arg His Leu
      145            150            155            160
Asp Val Thr Cys Glu Ala Tyr Asp His Phe Arg Ser Cys Leu His Ala
      165            170            175
Leu Glu Gln Leu Thr Asp Gly Lys Leu Arg Phe Val Val Glu Pro Val
      180            185            190
Glu Ala Ser Phe Pro Gln Leu Leu Val Tyr Glu Arg Leu Gln Gln Leu
      195            200            205
Glu Leu Trp Lys Ile Ile Ala Glu Pro Val Thr
      210            215

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<210> 3247

<211> 977

<212> DNA

<213> Homo sapiens

<400> 3247

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120
aggttcaaca gcggcacgta taacaaccag tggatgatcg tggactacaa ggcgttcac
180
ccgggtgggc ccagccccgg gagccgggtg cttaccatcc tggagcagat ccccggcag
240
gtgggtgggtg ctgacaagac ctgagagctc taccagaaga cctactgggc cagctacaac
300

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atacgctcct tcgagactgt gttcaatgcc agtgggctgc aggcctagt ggcccagtat
 360
 ggggactggg tttcttatga cgggagcccc cgggcccaga tttccggcg gaaccagtca
 420
 ctggtacaag acatggactc catggtcagg ctgatgaggt acaatgactt cctccatgac
 480
 cctctgtcac tgtgcaaagc ctgcaacccc cagcccaatg gggagaatgc tatctccgcc
 540
 cgctccgacc tcaaccgggc caatggctcc tacccttcc aggcctacg tcagcgtcc
 600
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 660
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 720
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 840
 acccccgccc caaggccacc ggacttctaa ctccagcccc tccgggggc ttcgttctct
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 960
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 977

<210> 3248

<211> 260

<212> PRT

<213> Homo sapiens

<400> 3248

Asn	Pro	Ala	Leu	Trp	Lys	Tyr	Val	Arg	Pro	Arg	Gly	Cys	Val	Leu	Glu
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Trp	Val	Arg	Asn	Ile	Val	Ala	Asn	Arg	Leu	Ala	Ser	Asp	Gly	Ala	Thr
			20					25					30		
Trp	Ala	Asp	Ile	Phe	Lys	Arg	Phe	Asn	Ser	Gly	Thr	Tyr	Asn	Asn	Gln
		35					40					45			
Trp	Met	Ile	Val	Asp	Tyr	Lys	Ala	Phe	Ile	Pro	Gly	Gly	Pro	Ser	Pro
	50					55					60				
Gly	Ser	Arg	Val	Leu	Thr	Ile	Leu	Glu	Gln	Ile	Pro	Gly	Met	Val	Val
65					70				75					80	
Val	Ala	Asp	Lys	Thr	Ser	Glu	Leu	Tyr	Gln	Lys	Thr	Tyr	Trp	Ala	Ser
			85						90					95	
Tyr	Asn	Ile	Pro	Ser	Phe	Glu	Thr	Val	Phe	Asn	Ala	Ser	Gly	Leu	Gln
			100					105					110		
Ala	Leu	Val	Ala	Gln	Tyr	Gly	Asp	Trp	Phe	Ser	Tyr	Asp	Gly	Ser	Pro
		115					120					125			
Arg	Ala	Gln	Ile	Phe	Arg	Arg	Asn	Gln	Ser	Leu	Val	Gln	Asp	Met	Asp
		130					135					140			
Ser	Met	Val	Arg	Leu	Met	Arg	Tyr	Asn	Asp	Phe	Leu	His	Asp	Pro	Leu
145					150					155				160	
Ser	Leu	Cys	Lys	Ala	Cys	Asn	Pro	Gln	Pro	Asn	Gly	Glu	Asn	Ala	Ile
			165					170					175		
Ser	Ala	Arg	Ser	Asp	Leu	Asn	Pro	Ala	Asn	Gly	Ser	Tyr	Pro	Phe	Gln

[illegible]

<210> 3249

<211> 4487

<212> DNA

<213> Homo sapiens

<400> 3249

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180	gctcttcaact	tttatgcttt	ccaccagaggt	aataatggaa	atcctggaaa	gccttctcct
240	ttcccatggg	ttcccaactga	ttgctttttct	ctctctctct	ccccacccca	ctccaggtgc
300	tctggggcca	ggtgccaccg	gccattgtcc	aggcagctgt	gtgcaagcca	aagaagcatg
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420	tacggcaacc	tgactgagac	gcgcacgctg	ctagccatcc	agcagcaggc	cctgaggggt
480	ggggctggaa	ctgggggtac	agggagcccc	caggcctccc	tggagatcct	ggccccagag
540	gacagtcagg	tgctgcagca	ggccaccagg	caggagcccc	agggccagga	gcaccagggc
600	ggtgagaacc	acctggcaga	gaacaccctc	taccggctat	gcccacagcc	cagcaaggga
660	gaggagctgc	ccacctatga	ggaggccaaa	gcccactcgc	agtactatgc	ggcccagcag
720	gcagggaccc	ggccacatgc	gggggaccga	gatccccgtg	ggggcccggg	aggcagtcgg
780	aggcaggacg	aggccctgcg	ggagctgagg	catgggcacg	tgcgctcgtt	gagtgaacgg
840	ctccttcagt	tgtccctgga	gaggaacggc	gcccggggcc	ccagccacat	gagctcctcc
900	cacagcttcc	cacagctggc	ccgcaaccag	caggggcccc	caactgaggg	ccccctgct
960	gagggcccag	agtcccagag	acccccacct	cagtaccctc	atgttgtact	agctcatgag
1020	accaccactg	ctgtcaactga	cccacgggtac	cgtgcccgcg	gcagcccgcg	cttcagcat
1080	gctgaagtca	ggatcctgca	ggcccaggtg	cctcctgtgt	tctccaaca	gcagcagcag

taccagtacc tgcagcaatc tcaggagcac cccctcccc cacatccagc tgctctcggc
1140
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1200
tcctcagcca cctcgggcag tgcccacctg gcccagatgg aggccgtgct gagggagaat
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1320
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<212> PRT

<213> Homo sapiens

<400> 3250

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 Gln Gln His Gln Ile His Arg Ser Cys Thr Val Asn Ile Met Phe Gly
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 Val Ala Arg Asn Tyr Glu Arg Tyr Lys Asn Glu Cys Arg Glu Lys Glu
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 Arg Glu Glu Ile Ala Arg Gln Ala Ala Lys Met Ala Asp Glu Ala Ile
 115 120 125
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 Arg Lys Glu Arg Leu Met Arg Ser Ser Thr Asp Ser Leu Pro Gly Glu
 180 185 190
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 195 200 205
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<212> PRT

<213> Homo sapiens

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Tyr	Ser	Arg	Val	Thr	Pro	Gln	Glu	Gln	Ala	Lys	Leu	Asp	Ala	Gln	Leu
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Glu	Asp	Glu	Arg	Lys	Phe	Thr	Ser	Thr	Cys	His	Phe	Thr	Tyr	Pro	Ala
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Ser	His	Asp	Leu	His	Leu	Ala	Gln	Gly	Asp	Pro	Asn	Gln	Val	Leu	Gln
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Ser	Ala	Asp	Phe	Pro	Cys	Leu	Val	Asp	Pro	Lys	His	Gln	Pro	Ala	Ala
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Glu	Met	Ala	Lys	Gly	Tyr	Leu	Leu	Leu	Pro	Gly	Cys	Pro	Cys	Leu	His
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<211> 724

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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 35 40 45
 Pro Asn Gly Asp Thr Tyr Glu Gly Ser Tyr Glu Phe Gly Lys Arg His
 50 55 60
 Gly Gln Gly Ile Tyr Lys Phe Lys Asn Gly Ala Arg Tyr Ile Gly Glu
 65 70 75 80
 Tyr Val Arg Asn Lys Lys His Gly Gln Gly Thr Phe Ile Tyr Pro Asp
 85 90 95
 Gly Ser Arg Tyr Glu Gly Glu Trp Ala Asn Asp Leu Arg His Gly His
 100 105 110
 Gly Val Tyr Tyr Tyr Ile Asn Asn Asp Thr Tyr Thr Gly Glu Trp Phe
 115 120 125
 Ala His Gln Arg His Gly Gln Gly Thr Tyr Leu Tyr Ala Glu Thr Gly
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 <213> Homo sapiens

<400> 3258
 Xaa Pro Gly Tyr Ile Asp Ser Pro Thr Tyr Ser Arg Gln Gly Met Ser
 1 5 10 15
 Pro Thr Phe Ser Arg Ser Pro His His Tyr Tyr Arg Ser Gly Asp Leu
 20 25 30
 Ser Thr Ala Thr Lys Ser Glu Thr Ser Glu Asp Ile Ser Gln Thr Ser
 35 40 45
 Lys Tyr Ser Pro Ile Tyr Ser Pro Asp Pro Tyr Tyr Ala Ser Glu Ser
 50 55 60
 Glu Tyr Trp Thr Tyr His Gly Ser Pro Lys Val Pro Arg Ala Arg Arg
 65 70 75 80
 Phe Ser Ser Gly Gly Glu Glu Asp Asp Phe Asp Arg Ser Met His Lys
 85 90 95
 Leu Gln Ser Gly Ile Gly Arg Leu Ile Leu Lys Glu Glu Met Lys Ala
 100 105 110
 Arg Ser Ser Ser Tyr Ala Asp Pro Trp Arg
 115 120

<210> 3259
 <211> 747
 <212> DNA
 <213> Homo sapiens

<400> 3259
 acgcgtgaag ggcgcaccct ctgctgcagc actggccacc ccggacacgc tgcagggcca
 60

gtgctcagcc ttcgtacagc tctgggcccgt cctgcagccc atcttggtgtg gcaacaaccg
 120
 caccattgaa cccggagcgc tgcggcgggg caacatgagc tccctgggct ttacgagcaa
 180
 ggagcagcgg aacctggggc ttctcgtgca cctcatgacc agcaaccca aaatcctgta
 240
 cgcgcctgcg ggctctgagg tcgaccgct catcctcaag gccaacgaga cttttgcttt
 300
 tgtgggcaac gtgactcact atgcccaggt ctggctcaac atctcggcgg agatccgcag
 360
 cttcctggag cagggcaggc tgcagcaaca cctgcgctgg ctgcagcagt atgtagcaga
 420
 gctgcggctg caccctgagg cactgaacct gtcactggat gagctgccgc cggccctgag
 480
 acaggacaac ttctcgtgct ccagtggcat ggccctcctg cagcagctgg ataccattga
 540
 caacgcggcc tgcggctgga tccagttcat gtccaagggt agcgtggaca tcttcaaggg
 600
 cttccccgac gaggagagca ttgtcaacta caccctcaac caggcctacc aggacaacgt
 660
 cactgttttt gccagtgtga tcttcagac ccggaaggac ggctcgtccc gcctcacgtg
 720
 cactacaaga tccgccagaa ctccagc
 747

<210> 3260

<211> 197

<212> PRT

<213> Homo sapiens

<400> 3260

Met	Ser	Ser	Leu	Gly	Phe	Thr	Ser	Lys	Glu	Gln	Arg	Asn	Leu	Gly	Leu
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Leu	Val	His	Leu	Met	Thr	Ser	Asn	Pro	Lys	Ile	Leu	Tyr	Ala	Pro	Ala
			20					25					30		
Gly	Ser	Glu	Val	Asp	Arg	Val	Ile	Leu	Lys	Ala	Asn	Glu	Thr	Phe	Ala
		35					40					45			
Phe	Val	Gly	Asn	Val	Thr	His	Tyr	Ala	Gln	Val	Trp	Leu	Asn	Ile	Ser
		50				55					60				
Ala	Glu	Ile	Arg	Ser	Phe	Leu	Glu	Gln	Gly	Arg	Leu	Gln	Gln	His	Leu
65					70				75					80	
Arg	Trp	Leu	Gln	Gln	Tyr	Val	Ala	Glu	Leu	Arg	Leu	His	Pro	Glu	Ala
			85					90					95		
Leu	Asn	Leu	Ser	Leu	Asp	Glu	Leu	Pro	Pro	Ala	Leu	Arg	Gln	Asp	Asn
		100						105					110		
Phe	Ser	Leu	Pro	Ser	Gly	Met	Ala	Leu	Leu	Gln	Gln	Leu	Asp	Thr	Ile
		115				120						125			
Asp	Asn	Ala	Ala	Cys	Gly	Trp	Ile	Gln	Phe	Met	Ser	Lys	Val	Ser	Val
		130				135					140				
Asp	Ile	Phe	Lys	Gly	Phe	Pro	Asp	Glu	Glu	Ser	Ile	Val	Asn	Tyr	Thr
145					150				155					160	
Leu	Asn	Gln	Ala	Tyr	Gln	Asp	Asn	Val	Thr	Val	Phe	Ala	Ser	Val	Ile
			165					170					175		
Phe	Gln	Thr	Arg	Lys	Asp	Gly	Ser	Ser	Arg	Leu	Thr	Cys	Thr	Thr	Arg

180
Ser Ala Arg Thr Pro
195

185

190

<210> 3261

<211> 1323

<212> DNA

<213> Homo sapiens

<400> 3261

nnacgcgtac agccaccttc cttaccgcgc gccctgccgg gagcctgctt cttatcattt
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gcacctcatt gctttcctca cctgccatct cacacgtggc tgcctgtgtg tgccctgtg
120
tgctgtgcca attgtgtttt ttgtctctgt gtacattttg gttttatttg gggttgctgt
180
tgatgatttc ctttgttccg gtgttctgtc tcccctcgtt ggctgtgtgg gggctgcctg
240
gcccgtctgt tgcgcctcc atagatcccc gttgcgcagc catctgtcat ggacgacatt
300
gagggtgtggc tcaggaccga cctgaagggt gatgatctgg aggaggggtg cacaagtga
360
gagtttgata aattccttga agaaagagcc aaagctgtgt aaatgggtcc cgacctcccc
420
tcgcccccca tggaggtccc tgccccagcc tcaaaccctt ctggccggaa gaagccagag
480
cggtcagagg atgccctctt cgccctgtga gcagctctgt ggtttgcctc cccagatggc
540
gggtccccgc ttgcaccccg tggacaccgg gactggcca ctctacatc cccagctcca
600
cacggcctgc acacctgtgt ttccatggaa atgccaccgt gtctgtctcc aggcctcccc
660
ctagtcagga ccagcttcag ccacttcttt tctctgagtg gtgggacaac tgcagccaga
720
gactctctcc cctcccacca tgggccccctc tgcccatgtt tcctcccagg aagagcgggc
780
agagtggccc agccccaggc agtgcttcct gagcagacca cccggactgt ctttctcca
840
cccgcccatg gagaaagagc acgcccggcc ccgcccgtgt ctacactctg cctggctcag
900
tgaccttctc aggcattctg ccctcctggg cccctctctc cctgaagggg ctttgtggca
960
tctctggaag agcaggggtg gctgcactca tgggcctggg ctactcctt ggacttgtca
1020
cctgtgaca tttggcttac cagcatttga gaaggctctg ctgggtctcc atgggtgggg
1080
tctctcacct tcttgacct ctctccatca ttcagctgcc agcccaggct tcacacccaa
1140
gctggctcag cagccgagcc tggcaccgag ggtccctgca ggctccctgg gcagggagag
1200
ggccaaggac aattgggagg gcagcaggca gcccgagat ggtggccatg tggcacgctg
1260
ctgagacgac actaccaata aaccaaactg ccacgcacaa aaaaaaaaaa aaaaaaaaaa
1320

aaa
1323

<210> 3262
<211> 81
<212> PRT
<213> Homo sapiens

<400> 3262
Ile Pro Val Ala Gln Pro Ser Val Met Asp Asp Ile Glu Val Trp Leu
1 5 10 15
Arg Thr Asp Leu Lys Gly Asp Asp Leu Glu Glu Gly Val Thr Ser Glu
20 25 30
Glu Phe Asp Lys Phe Leu Glu Glu Arg Ala Lys Ala Ala Glu Met Val
35 40 45
Pro Asp Leu Pro Ser Pro Pro Met Glu Ala Pro Ala Pro Ala Ser Asn
50 55 60
Pro Ser Gly Arg Lys Lys Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala
65 70 75 80
Leu

<210> 3263
<211> 1128
<212> DNA
<213> Homo sapiens

<400> 3263
agccgctacc gccgcagcag cggggacgag ctcagggagg acgatgagcc cgtcaagaag
60
cggggacgca agggccgggg cgggggtccc cgtcctcct ctgactccga gcccagggcc
120
gagctggaga gagaggccaa gaaatcagcg aagaagccgc agtcctcaag cacagagccc
180
gccaggaaac ctggccagaa ggagaagaga gtgcggcccg aggagaagca acaagccaag
240
cccgtgaagg tggagcggac ccggaagcgg tccgagggct tctcgatgga caggaaggta
300
gagaagaaga aagagccctc cgtggaggag aagctgcaga agctgcacag tgagatcaag
360
tttgcctaa aggtcgacag cccggacgtg aaggggtgcc tgaatgccct agaggagctg
420
ggaaccctgc aggtgacctc tcagatcctc cagaagaaca cagacgtggt ggccaccttg
480
aagaagattc gccgttaca agcgaacaag gacgtaatgg agaaggcagc agaagtctat
540
accctgctca agtcgcgggt cctcggccca aagatcgagg cgggtgcagaa agtgaacaag
600
gctgggatgg agaaggagaa ggccgaggag aagctggccg gggaggagct ggccggggag
660
gaggcccccc aggagaaggc ggaggacaag ccagcaccg atctctcagc cccagtgaat
720
ggcgaggcca catcacagaa gggggagagc gcagaggaca aggagcacga ggagggtcgg
780

gactcggagg aggggccaag gtgtggctcc tctgaagacc tgcacgacag cgtacgggag
 840
 ggtcccgacc tggacaggcc tgggagcgac cggcaggagc gcgagagggc acggggggac
 900
 tcggaggccc tggacgagga gagctgagcc gcgggcagcc aggcccagcc cccgcccag
 960
 ctcaggctgc ccctctcctt ccccggtctg caggagagca gagcagagaa ctgtggggaa
 1020
 cgctgtgctg tttgtatttg ttcccttggg ttttttttct ctgcctaatt tctgtgattt
 1080
 ccaaccaaca tgaaatgact ataaatgggt tttttaatga aaaaaaaaa
 1128

<210> 3264

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3264

Ser	Arg	Tyr	Arg	Arg	Ser	Ser	Gly	Asp	Glu	Leu	Arg	Glu	Asp	Asp	Glu
1				5				10					15		
Pro	Val	Lys	Lys	Arg	Gly	Arg	Lys	Gly	Arg	Gly	Arg	Gly	Pro	Pro	Ser
			20					25					30		
Ser	Ser	Asp	Ser	Glu	Pro	Glu	Ala	Glu	Leu	Glu	Arg	Glu	Ala	Lys	Lys
		35					40					45			
Ser	Ala	Lys	Lys	Pro	Gln	Ser	Ser	Ser	Thr	Glu	Pro	Ala	Arg	Lys	Pro
	50					55				60					
Gly	Gln	Lys	Glu	Lys	Arg	Val	Arg	Pro	Glu	Glu	Lys	Gln	Gln	Ala	Lys
65					70					75					80
Pro	Val	Lys	Val	Glu	Arg	Thr	Arg	Lys	Arg	Ser	Glu	Gly	Phe	Ser	Met
			85					90						95	
Asp	Arg	Lys	Val	Glu	Lys	Lys	Lys	Glu	Pro	Ser	Val	Glu	Glu	Lys	Leu
			100					105					110		
Gln	Lys	Leu	His	Ser	Glu	Ile	Lys	Phe	Ala	Leu	Lys	Val	Asp	Ser	Pro
		115					120					125			
Asp	Val	Lys	Gly	Cys	Leu	Asn	Ala	Leu	Glu	Glu	Leu	Gly	Thr	Leu	Gln
	130					135					140				
Val	Thr	Ser	Gln	Ile	Leu	Gln	Lys	Asn	Thr	Asp	Val	Val	Ala	Thr	Leu
145					150					155					160
Lys	Lys	Ile	Arg	Arg	Tyr	Lys	Ala	Asn	Lys	Asp	Val	Met	Glu	Lys	Ala
			165					170					175		
Ala	Glu	Val	Tyr	Thr	Arg	Leu	Lys	Ser	Arg	Val	Leu	Gly	Pro	Lys	Ile
		180						185					190		
Glu	Ala	Val	Gln	Lys	Val	Asn	Lys	Ala	Gly	Met	Glu	Lys	Glu	Lys	Ala
		195				200					205				
Glu	Glu	Lys	Leu	Ala	Gly	Glu	Glu	Leu	Ala	Gly	Glu	Glu	Ala	Pro	Gln
	210					215					220				
Glu	Lys	Ala	Glu	Asp	Lys	Pro	Ser	Thr	Asp	Leu	Ser	Ala	Pro	Val	Asn
225					230					235					240
Gly	Glu	Ala	Thr	Ser	Gln	Lys	Gly	Glu	Ser	Ala	Glu	Asp	Lys	Glu	His
			245					250					255		
Glu	Glu	Gly	Arg	Asp	Ser	Glu	Glu	Gly	Pro	Arg	Cys	Gly	Ser	Ser	Glu
		260						265				270			
Asp	Leu	His	Asp	Ser	Val	Arg	Glu	Gly	Pro	Asp	Leu	Asp	Arg	Pro	Gly

275 280 285
 Ser Asp Arg Gln Glu Arg Glu Arg Ala Arg Gly Asp Ser Glu Ala Leu
 290 295 300
 Asp Glu Glu Ser
 305

<210> 3265
 <211> 524
 <212> DNA
 <213> Homo sapiens

<400> 3265
 tcatgacagt gtggtcctct gaagatttgt tcagactccc tggaactgtt ctttgtggtc
 60
 ctttttcgtg gttttcaaaa tgtttcatt gagggcgtat tacttttata atcaacaaaa
 120
 gagaaagtat aacttcattt tagaaattct cacctaaggc atttgaaaaa taatccaaaa
 180
 ggtacattat tgttgatttt tcttccttct agaaaggatc ttgttcgagt agaagccaca
 240
 gtcattgaaa agacagaatc atggccaaga atcattatga gattcaggaa aaggaaaaac
 300
 ttcaagaaga aaagaagtaa gtttagagaaa gtaccgctgg gccctggtgc acggtgctgg
 360
 ttgccaggc gcatgcggac ggaggggtgtg gggcacgtgg gtctcgggac aggaagccca
 420
 ggcaggtctc aacctggctg ccaactgccca cttgccaccc tcctcctaga gggagcaccc
 480
 agaggggtcca gcctcgtccc ccttctcctc cacgctccac gcgt
 524

<210> 3266
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 3266
 Met Arg Phe Arg Lys Arg Lys Asn Phe Lys Lys Lys Arg Ser Lys Leu
 1 5 10 15
 Glu Lys Val Pro Leu Gly Pro Val Ala Arg Cys Trp Leu Pro Arg Arg
 20 25 30
 Met Arg Thr Glu Gly Val Gly His Val Gly Leu Gly Thr Gly Ser Pro
 35 40 45
 Gly Arg Ser Gln Pro Gly Cys His Cys Pro Leu Ala Thr Leu Ile Leu
 50 55 60
 Glu Gly Ala Pro Arg Gly Ser Ser Leu Ala Pro Leu Leu Leu His Ala
 65 70 75 80
 Pro Arg

<210> 3267
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 3267
gtcgaatatg catgcagagt acaggggttta gaacatgaca tggaagagat caatgctcga
60
tggaatacat tgaataaaaa ggctgcacaa agaattgcac agctacagga agctttgttg
120
cattgtggga agtttcaaga tgccttggag ccattgctca gctggttggc agataccgag
180
gagctcatag ccaatcagaa acctccatct gctgagtata aagtggtgaa agcacagatc
240
caagaacaga agttgctcca gcggctccta gatgatcgaa aggccacagt agacatgctt
300
caagcagaag gaggcagaat agcccagtca gcagagctgg ctgatagaga gaaaatcact
360
ggacagctgg agagtcttga aagtagatgg act
393

<210> 3268
<211> 131
<212> PRT
<213> Homo sapiens

<400> 3268
Val Glu Tyr Ala Cys Arg Val Gln Gly Leu Glu His Asp Met Glu Glu
1 5 10 15
Ile Asn Ala Arg Trp Asn Thr Leu Asn Lys Lys Val Ala Gln Arg Ile
20 25 30
Ala Gln Leu Gln Glu Ala Leu Leu His Cys Gly Lys Phe Gln Asp Ala
35 40 45
Leu Glu Pro Leu Leu Ser Trp Leu Ala Asp Thr Glu Glu Leu Ile Ala
50 55 60
Asn Gln Lys Pro Pro Ser Ala Glu Tyr Lys Val Val Lys Ala Gln Ile
65 70 75 80
Gln Glu Gln Lys Leu Leu Gln Arg Leu Leu Asp Asp Arg Lys Ala Thr
85 90 95
Val Asp Met Leu Gln Ala Glu Gly Gly Arg Ile Ala Gln Ser Ala Glu
100 105 110
Leu Ala Asp Arg Glu Lys Ile Thr Gly Gln Leu Glu Ser Leu Glu Ser
115 120 125
Arg Trp Thr
130

<210> 3269
<211> 1423
<212> DNA
<213> Homo sapiens

<400> 3269
ctgtatcaaa aataatagta acttttttgaa tatacacaat ttatctagaa tctattttcc
60
tttgaagctg taactttatg agcgattatt tactaccttt gagaaatgtg ttttagtata
120
aaatatagga tgtggaagcg aaaaaatatt tgggtagcaa gtgagggtgta ctcaaaaaata
180

agcaaaagtc acgtgggtct gatatttatac cctcgctgga aagcttggtc tcagacacac
 240
 tgttactgca agtgtgtgtg agggggaaac tctcacacac tttgcagttg aggacagggc
 300
 tagactttga ggtggacctt ggctcccagg gctgtgtact cccagcccgt gtttctcttt
 360
 tgctcagact gaacaagtgg aacgaaatta cattaaagaa aagaaggcag cagtgaagaa
 420
 atttgaagac aagaagggtg agctgaaaga gaacctgatt gctgagctag aagaaaagaa
 480
 gaaaatgatt gaaaacgaaa tgctgacaat ggaactgaat ggagattcta tggaggtgaa
 540
 acctatcatg accagaaagt tgcggaggcg accaaatgat cccgtcccca tcccagacaa
 600
 gaggaggaaa cctgctccag cccagctaaa ctatttgta acagatgaac agatcatgga
 660
 ggatctgaga acattaaata agcttaagtc acccaagaga ccagcatctc catcctctcc
 720
 tgagcacttg cctgcaacac ccgcggaatc tccagcacag agatttgagg cgcggataga
 780
 agatggcaaa ctgtattatg acaaaagatg gtaccacaag agccaggcca tctatctgga
 840
 gtcaaaggac aaccagaaac tgagctgcgt gatcagttct gtaggagcca atgagatctg
 900
 ggtgaggaag acaagtgaca gcaccaagat gaggatctac ctgggtcagc ttcagcgcgg
 960
 gctcttcgtg atccgcgggc gctcagctgc ttgactttct acagtgtctt tctcttgacc
 1020
 ctttttctgg agtgggtttt atttttgttt tgtttcgttt tctccttaac agaaaaatgt
 1080
 taacttactg ggaatagcta ctcagccttg gaaatggaga gcactgcagt gaattcttta
 1140
 gggcactttt gtggccggat gcttccaact ttgtcagttt tttctgcctc aacttcttcc
 1200
 agacatcagt caccatgaga ctgttttact ttcaggcgta ttgggggggt tgatttactt
 1260
 tccttttatt tctttatttt ttgcttatac ttgtttttga aaacctctc tgagtttgaa
 1320
 gggacagcta tttttattga ttatctttta gtctctctac catggagaag agcaggaagg
 1380
 gatacactct ccagtgcatt ttcattgttt gaatcggatt agt
 1423

<210> 3270

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3270

Met	Ile	Glu	Asn	Glu	Met	Leu	Thr	Met	Glu	Leu	Asn	Gly	Asp	Ser	Met
1				5				10						15	
Glu	Val	Lys	Pro	Ile	Met	Thr	Arg	Lys	Leu	Arg	Arg	Arg	Pro	Asn	Asp
			20					25					30		
Pro	Val	Pro	Ile	Pro	Asp	Lys	Arg	Arg	Lys	Pro	Ala	Pro	Ala	Gln	Leu

```

      35          40          45
Asn Tyr Leu Leu Thr Asp Glu Gln Ile Met Glu Asp Leu Arg Thr Leu
  50          55          60
Asn Lys Leu Lys Ser Pro Lys Arg Pro Ala Ser Pro Ser Ser Pro Glu
  65          70          75          80
His Leu Pro Ala Thr Pro Ala Glu Ser Pro Ala Gln Arg Phe Glu Ala
      85          90          95
Arg Ile Glu Asp Gly Lys Leu Tyr Tyr Asp Lys Arg Trp Tyr His Lys
      100          105          110
Ser Gln Ala Ile Tyr Leu Glu Ser Lys Asp Asn Gln Lys Leu Ser Cys
      115          120          125
Val Ile Ser Ser Val Gly Ala Asn Glu Ile Trp Val Arg Lys Thr Ser
      130          135          140
Asp Ser Thr Lys Met Arg Ile Tyr Leu Gly Gln Leu Gln Arg Gly Leu
  145          150          155          160
Phe Val Ile Arg Arg Arg Ser Ala Ala
      165

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<210> 3271

<211> 464

<212> DNA

<213> Homo sapiens

<400> 3271

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tcatgagcag ggccaattc tggcttctct gtggctcgcca tccatgtgct gggcgtcact
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gaaggcactg gggatacagc cgagcacaag atggacagag atccctggcc cctcggagca
  120
ggcagtctgt ggctctggcc cctccagttc cttgtcacca ggagataggc aatgcagctg
  180
atgagaaggg ccccggcagc aagagatcca atgatggtgg ccgccaggat cccagcgttg
  240
gtgggcaggt gtgtactggg cagctcctta ttcttttcag ctacctggac ctcagtcttg
  300
gccttcatag tccattcaga gttgatggta atggctactt ggtaggtgcc actgtctgta
  360
ggctgggcgc ggcgcagcag catggaacca ttggggaagc ccacgatgtc tcgctgtccc
  420
atggcactgc catccctctg aggcggttgt atccccaggg atgt
  464

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<210> 3272

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3272

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Met Gly Gln Arg Asp Ile Val Gly Phe Pro Asn Gly Ser Met Leu Leu
  1          5          10          15
Arg Arg Ala Gln Pro Thr Asp Ser Gly Thr Tyr Gln Val Ala Ile Thr
      20          25          30
Ile Asn Ser Glu Trp Thr Met Lys Ala Lys Thr Glu Val Gln Val Ala
      35          40          45
Glu Lys Asn Lys Glu Leu Pro Ser Thr His Leu Pro Thr Asn Ala Gly

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      50              55              60
Ile Leu Ala Ala Thr Ile Ile Gly Ser Leu Ala Ala Gly Ala Leu Leu
65              70              75              80
Ile Ser Cys Ile Ala Tyr Leu Leu Val Thr Arg Asn Trp Arg Gly Gln
      85              90              95
Ser His Arg Leu Pro Ala Pro Arg Gly Gln Gly Ser Leu Ser Ile Leu
      100              105              110
Cys Ser Ala Val Ser Pro Val Pro Ser Val Thr Pro Ser Thr Trp Met
      115              120              125
Ala Thr Thr Glu Lys Pro Glu Leu Gly Pro Ala His
      130              135              140

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<210> 3273

<211> 387

<212> DNA

<213> Homo sapiens

<400> 3273

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ngcgcgccag ggatggaaaa ctttattctg tatgaggaga tcggaagagg aagcaagact
60
gttgtctata aagggcgacg gaagggaaca atcaattttg tagccattct ttgtactgat
120
aagtgcagaa ggctgaaat aaccaactgg gtccgtctca cccgtgaaat aaaacacaag
180
aatattgtaa cttttcatga atggtatgaa acaagcaacc acctctggct agtgggtggaa
240
ctccgcacag gtggttcctt aaaaacagtt attgctcaag atgaaaacct cccagaagat
300
gttgtgagag aatttggaat tgacctgatt agtggattac atcatcttca taaacttggc
360
attctctttg tgacatttct cctagga
387

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<210> 3274

<211> 129

<212> PRT

<213> Homo sapiens

<400> 3274

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Xaa Ala Pro Gly Met Glu Asn Phe Ile Leu Tyr Glu Glu Ile Gly Arg
 1              5              10              15
Gly Ser Lys Thr Val Val Tyr Lys Gly Arg Arg Lys Gly Thr Ile Asn
      20              25              30
Phe Val Ala Ile Leu Cys Thr Asp Lys Cys Arg Arg Pro Glu Ile Thr
      35              40              45
Asn Trp Val Arg Leu Thr Arg Glu Ile Lys His Lys Asn Ile Val Thr
      50              55              60
Phe His Glu Trp Tyr Glu Thr Ser Asn His Leu Trp Leu Val Val Glu
65              70              75              80
Leu Arg Thr Gly Gly Ser Leu Lys Thr Val Ile Ala Gln Asp Glu Asn
      85              90              95
Leu Pro Glu Asp Val Val Arg Glu Phe Gly Ile Asp Leu Ile Ser Gly
      100              105              110
Leu His His Leu His Lys Leu Gly Ile Leu Phe Val Thr Phe Leu Leu

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115 120 125
 Gly

 <210> 3275
 <211> 1266
 <212> DNA
 <213> Homo sapiens

 <400> 3275
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 60
 agaacacatg aaaggaatac atggggaaga aataaagtag aaccaagag ttcttttaag
 120
 ttttctttta tagagacatg aataacagat acactgaagt ataaacaaaa attggcctga
 180
 agcgtccggt ggccggctta gtaggagct atggctaaac atcatcctga ttgatcttt
 240
 tgccgcaagc aggctggtgt tgccatcgga agactgtgtg aaaaatgtga tggcaagtgt
 300
 gtgatttggtg actcctatgt gcgtccctgc actctggtgc gcatatgtga tgagtgtaac
 360
 tatggatctt accaggggag ctgtgtgac tgtggaggac ctggggtctc tgatgcctat
 420
 tattgtaagg agtgcacat ccaggagaag gacagagatg gctgcccaa gattgtcaat
 480
 ctggggagct ctaagacaga cctcttctat gaacgcaaaa aatacggctt caagaagagg
 540
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 720
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 780
 aatggttttt cttgaattcg agaagcatag atctgttctc catattggta tgttctccct
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 900
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 960
 aaccttttgt gtgtggtggg aagctatcag aacaagaaat gtaggcattt cccgtttttt
 1020
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 1080
 cttgtccagc tacagtgggg tacagtagct ggctattcac aggcattcac atagcccact
 1140
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<210> 3276
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3276
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 20 25 30
 Cys Asp Ser Tyr Val Arg Pro Cys Thr Leu Val Arg Ile Cys Asp Glu
 35 40 45
 Cys Asn Tyr Gly Ser Tyr Gln Gly Arg Cys Val Ile Cys Gly Gly Pro
 50 55 60
 Gly Val Ser Asp Ala Tyr Tyr Cys Lys Glu Cys Thr Ile Gln Glu Lys
 65 70 75 80
 Asp Arg Asp Gly Cys Pro Lys Ile Val Asn Leu Gly Ser Ser Lys Thr
 85 90 95
 Asp Leu Phe Tyr Glu Arg Lys Lys Tyr Gly Phe Lys Lys Arg
 100 105 110

<210> 3277
 <211> 1435
 <212> DNA
 <213> Homo sapiens

<400> 3277
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 120
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 180
 actcgtgcgt cattgctgtc agggccgagg gagcgggtgca aggccgccgc gtgacgtcag
 240
 gacgccgcgg tcaggacgtc gaagccaaag aagaccagag ccagccgggt ggcacagcgg
 300
 tgtcgtggcc gtgttgctga tcgcctgggt ggttggtggc gtgtccctgc agcgaaggat
 360
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 420
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 480
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 540
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 600
 aagtccagca gcaatgggccc tgtggccagt gcaagtacgt gtcccaggca gaagcctcag
 660
 ctttgacgca gcagcagtac taccagtggg accagcagta caactatgcc taccctaca
 720
 gctactacta tcccatgagc atgtaccaga gctatggctc cccttcccag tatgggatgg
 780

ccggctccta tggctagcca caccacagca gccatccgca cccaacacc aagggactct
 840
 gaaccagccc ccagtccccg gcatggatga gagcatgtcc taccagggtc cccctcagca
 900
 gctgccgtcg gctcagcccc ctcagccctc aaatccccca catgggggtc acacgctgaa
 960
 cagtggccct cagcctggga cagctccagc cacacagcan ncagccaggc gggggccgcc
 1020
 acggggccagg cctatggggc acacacctac accgaacctg ccaagcccaa gaagggccaa
 1080
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 1140
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 1200
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 1320
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 1435

<210> 3278

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3278

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Tyr	Ser	Met	Val	Ala	Gly	Ala	Gly	Arg	Glu	Asn	Gly	Met	Glu	Thr	Pro
			20					25				30			
Met	His	Glu	Asn	Pro	Glu	Trp	Glu	Lys	Ala	Arg	Gln	Ala	Leu	Ala	Ser
		35					40				45				
Ile	Ser	Lys	Ser	Gly	Ala	Ala	Gly	Gly	Ser	Ala	Lys	Ser	Ser	Ser	Asn
	50					55				60					
Gly	Pro	Val	Ala	Ser	Ala	Ser	Thr	Cys	Pro	Arg	Gln	Lys	Pro	Gln	Leu
65					70				75					80	
Cys	Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Thr	Ser	Ser	Thr	Thr	Met	Pro
			85				90							95	
Thr	Pro	Thr	Ala	Thr	Thr	Ile	Pro								
			100												

<210> 3279

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 3279

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 120

cctgagccag aaccaggcac catggtggag aagggatcag atagctcctc agagaagggg
 180
 ggggtgcctg ggacccccag caccagagc ctaggcagcc ggaacttcac ccgcaacagc
 240
 aagaagatgc agagctggta cagtatgctg agccccactt ataagcagcg taatgaggac
 300
 ttccggaaac tgttcagcaa actccccgaa gcagaacgcc tcattgtgga ttactcctgc
 360
 gccctgcagc gtgagatcct gctccagggc cgctctacc tctctgagaa ctggatctgc
 420
 ttctacagca acatcttccg ctgggagacc acgatctcca tccagctgaa ggaagtgaca
 480
 tgtctgaaga aggaaaagac ggccaagctg atccccaacg ccatccagat ctgcacggag
 540
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 660
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 720
 cccttgagc tgaacggtct ggggaccccc aaggaagtgg gagatgtgat cgccctgagc
 780
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 840
 cgtggccatg tcacgcccac cctttcccga gccagcagcg acgcagacca tggggcagag
 900
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 960
 ccggtggctg aacccccgag cacagagccc acccagcctg acggggccac caccctgggc
 1020
 cccttgatc tgctgcccag tgaggagcta ttgacagaca caagtaactc ctcttcaccc
 1080
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 1130

<210> 3280

<211> 376

<212> PRT

<213> Homo sapiens

<400> 3280

Xaa	Arg	Ala	His	Arg	Ala	Ala	Ser	Met	Phe	Asp	Thr	Thr	Pro	His	Ser
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Gly	Arg	Ser	Thr	Pro	Ser	Ser	Ser	Pro	Ser	Leu	Arg	Lys	Arg	Leu	Gln
			20					25					30		
Leu	Leu	Pro	Pro	Ser	Arg	Pro	Pro	Pro	Glu	Pro	Glu	Pro	Gly	Thr	Met
			35				40					45			
Val	Glu	Lys	Gly	Ser	Asp	Ser	Ser	Ser	Glu	Lys	Gly	Gly	Val	Pro	Gly
	50					55					60				
Thr	Pro	Ser	Thr	Gln	Ser	Leu	Gly	Ser	Arg	Asn	Phe	Ile	Arg	Asn	Ser
65					70				75					80	
Lys	Lys	Met	Gln	Ser	Trp	Tyr	Ser	Met	Leu	Ser	Pro	Thr	Tyr	Lys	Gln
			85					90						95	
Arg	Asn	Glu	Asp	Phe	Arg	Lys	Leu	Phe	Ser	Lys	Leu	Pro	Glu	Ala	Glu

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      100      105      110
Arg Leu Ile Val Asp Tyr Ser Cys Ala Leu Gln Arg Glu Ile Leu Leu
      115      120      125
Gln Gly Arg Leu Tyr Leu Ser Glu Asn Trp Ile Cys Phe Tyr Ser Asn
      130      135      140
Ile Phe Arg Trp Glu Thr Thr Ile Ser Ile Gln Leu Lys Glu Val Thr
145      150      155      160
Cys Leu Lys Lys Glu Lys Thr Ala Lys Leu Ile Pro Asn Ala Ile Gln
      165      170      175
Ile Cys Thr Glu Ser Glu Lys His Phe Phe Thr Ser Phe Gly Ala Arg
      180      185      190
Asp Arg Cys Phe Leu Leu Ile Phe Arg Leu Trp Gln Asn Ala Leu Leu
      195      200      205
Glu Lys Thr Leu Ser Pro Arg Glu Leu Trp His Leu Val His Gln Cys
      210      215      220
Tyr Gly Ser Glu Leu Gly Leu Thr Ser Glu Asp Glu Asp Tyr Val Ser
225      230      235      240
Pro Leu Gln Leu Asn Gly Leu Gly Thr Pro Lys Glu Val Gly Asp Val
      245      250      255
Ile Ala Leu Ser Asp Ile Thr Ser Ser Gly Ala Ala Asp Arg Ser Gln
      260      265      270
Glu Pro Ser Pro Val Gly Ser Arg Arg Gly His Val Thr Pro Asn Leu
      275      280      285
Ser Arg Ala Ser Ser Asp Ala Asp His Gly Ala Glu Glu Asp Lys Glu
      290      295      300
Glu Gln Val Asp Ser Gln Pro Asp Ala Ser Ser Ser Gln Thr Val Thr
305      310      315      320
Pro Val Ala Glu Pro Pro Ser Thr Glu Pro Thr Gln Pro Asp Gly Pro
      325      330      335
Thr Thr Leu Gly Pro Leu Asp Leu Leu Pro Ser Glu Glu Leu Leu Thr
      340      345      350
Asp Thr Ser Asn Ser Ser Ser Ser Thr Gly Glu Glu Ala Asp Leu Ala
      355      360      365
Ala Leu Leu Pro Asp Leu Ser Gly
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<210> 3281

<211> 842

<212> DNA

<213> Homo sapiens

<400> 3281

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120

ggcaaggagg tagagccagc ggctgaggac ctgtcagggc cagtcccagc tctgcagctt

180

gctgtgtgac ctggcacaca tcctctccct gcctccctca gtctcttccc ctgcaagacg

240

gggtcctgac acggatctca tgggattgct ctgaggccca ggcagtccca ggctcaacca

300

ctggttcaca aagtgtgttg tttccaggaa gaacagatgg gggcgctga gggcaaaggg

360

cctgagtgtg ggtcgaggat atgccggctg ctgctcagg ggctgggttt tcatcttgtg
 420
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 480
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 540
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 600
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 720
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 842

<210> 3282

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3282

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Pro	Asp	Thr	Ser	Leu	Gln	Val	Leu	Leu	Val	Ala	Gly	Pro	Thr	Lys	Ala
			20						25					30	
Pro	Trp	Pro	Arg	Gln	Pro	Gly	Gly	Cys	Trp	Thr	Val	Gly	Leu	Pro	Ala
			35				40						45		
Thr	Ser	Phe	Ala	Arg	Gly	Lys	Glu	His	His	Val	Gly	His	Ile	His	Glu
	50					55					60				
Gly	Thr	Gly	Asn	Ser	Val	Val	Pro	Ser	Val	Thr	Pro	Cys	Gln	Asp	Thr
65					70					75				80	
Gln	Asp	Glu	Asn	Pro	Ala	Pro	Glu	Arg	Ala	Ala	Gly	Ile	Ser	Ser	Thr
			85						90					95	
His	Thr	Gln	Ala	Leu	Cys	Pro	Gln	Ala	Pro	Pro	Ser	Val	Leu	Pro	Gly
			100					105					110		
Asn	Asn	Thr	Leu	Cys	Glu	Pro	Val	Val	Glu	Pro	Gly	Thr	Ala	Trp	Ala
		115					120					125			
Ser	Glu	Gln	Ser	His	Glu	Ile	Arg	Val	Arg	Thr	Pro	Ser	Cys	Arg	Gly
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Arg	Asp														
145															

<210> 3283

<211> 3268

<212> DNA

<213> Homo sapiens

<400> 3283

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240
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1680

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3268

<210> 3284
 <211> 1012
 <212> PRT
 <213> Homo sapiens

<400> 3284
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 20 25 30
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 35 40 45
 Met Glu His Lys Ala Thr Thr Ile Gln Lys His Val Arg Gly Trp Met
 50 55 60
 Ala Arg Arg His Phe Gln Arg Leu Arg Asp Ala Ala Ile Val Ile Gln
 65 70 75 80
 Cys Ala Phe Arg Met Leu Lys Ala Arg Arg Glu Leu Lys Ala Leu Arg
 85 90 95
 Ile Glu Ala Arg Ser Ala Glu His Leu Lys Arg Leu Asn Val Gly Met
 100 105 110
 Glu Asn Lys Val Val Gln Leu Gln Arg Lys Ile Asp Glu Gln Asn Lys
 115 120 125
 Glu Phe Lys Thr Leu Ser Glu Gln Leu Ser Val Thr Thr Ser Thr Tyr
 130 135 140
 Thr Met Glu Val Glu Arg Leu Lys Lys Glu Leu Val His Tyr Gln Gln
 145 150 155 160
 Ser Pro Gly Glu Asp Thr Ser Leu Arg Leu Gln Glu Glu Val Glu Ser
 165 170 175
 Leu Arg Thr Glu Leu Gln Arg Ala His Ser Glu Arg Lys Ile Leu Glu
 180 185 190
 Asp Ala His Ser Arg Glu Lys Asp Glu Leu Arg Lys Arg Val Ala Asp
 195 200 205
 Leu Glu Gln Glu Asn Ala Leu Leu Lys Asp Glu Lys Glu Gln Leu Asn
 210 215 220
 Asn Gln Ile Leu Cys Gln Ser Lys Asp Glu Phe Ala Gln Asn Ser Val
 225 230 235 240
 Lys Glu Asn Leu Leu Met Lys Lys Glu Leu Glu Glu Glu Arg Ser Arg
 245 250 255
 Tyr Gln Asn Leu Val Lys Glu Tyr Ser Gln Leu Glu Gln Arg Tyr Asp
 260 265 270
 Asn Leu Arg Asp Glu Met Thr Ile Ile Lys Gln Thr Pro Gly His Arg
 275 280 285
 Arg Asn Pro Ser Asn Gln Ser Ser Leu Glu Ser Asp Ser Asn Tyr Pro
 290 295 300
 Ser Ile Ser Thr Ser Glu Ile Gly Asp Thr Glu Asp Ala Leu Gln Gln
 305 310 315 320
 Val Glu Glu Ile Gly Leu Glu Lys Ala Ala Met Asp Met Thr Val Phe
 325 330 335
 Leu Lys Leu Gln Lys Arg Val Arg Glu Leu Glu Gln Glu Arg Lys Lys
 340 345 350
 Leu Gln Val Gln Leu Glu Lys Arg Glu Gln Gln Asp Ser Lys Lys Val
 355 360 365
 Gln Ala Glu Pro Pro Gln Thr Asp Ile Asp Leu Asp Pro Asn Ala Asp

370	375	380
Leu Ala Tyr Asn Ser	Leu Lys Arg Gln Glu	Leu Glu Ser Glu Asn Lys
385	390	395
Lys Leu Lys Asn Asp	Leu Asn Glu Leu Arg	Lys Ala Val Ala Asp Gln
405	410	415
Ala Thr Gln Asn Asn Ser Ser His	Gly Ser Pro Asp Ser Tyr Ser Leu	
420	425	430
Leu Leu Asn Gln Leu Lys Leu Ala His	Glu Glu Leu Glu Val Arg Lys	
435	440	445
Glu Glu Val Leu Ile Leu Arg Thr Gln Ile Val	Ser Ala Asp Gln Arg	
450	455	460
Arg Leu Ala Gly Arg Asn Ala Glu Pro Asn Ile Asn Ala Arg Ser Ser		
465	470	475
Trp Pro Asn Ser Glu Arg His Val Asp Gln Glu Asp Ala Ile Glu Ala		
485	490	495
Tyr His Gly Val Cys Gln Thr Asn Arg Leu Leu Glu Ala Gln Leu Gln		
500	505	510
Ala Gln Ser Leu Glu His Glu Glu Val Glu His Leu Lys Ala Gln		
515	520	525
Leu Glu Ala Leu Lys Glu Glu Met Asp Lys Gln Gln Gln Thr Phe Cys		
530	535	540
Gln Thr Leu Leu Leu Ser Pro Glu Ala Gln Val Glu Phe Gly Val Gln		
545	550	555
Gln Glu Ile Ser Arg Leu Thr Asn Glu Asn Leu Asp Leu Lys Glu Leu		
565	570	575
Val Glu Lys Leu Glu Lys Asn Glu Arg Lys Leu Lys Lys Gln Leu Lys		
580	585	590
Ile Tyr Met Lys Lys Ala Gln Asp Leu Glu Ala Ala Gln Ala Leu Ala		
595	600	605
Gln Ser Glu Arg Lys Arg His Glu Leu Asn Arg Gln Val Thr Val Gln		
610	615	620
Arg Lys Glu Lys Asp Phe Gln Gly Met Leu Glu Tyr His Lys Glu Asp		
625	630	635
Glu Ala Leu Leu Ile Arg Asn Leu Val Thr Asp Leu Lys Pro Gln Met		
645	650	655
Leu Ser Gly Thr Val Pro Cys Leu Pro Ala Tyr Ile Leu Tyr Met Cys		
660	665	670
Ile Arg His Ala Asp Tyr Thr Asn Asp Asp Leu Lys Val His Ser Leu		
675	680	685
Leu Thr Ser Thr Ile Asn Gly Ile Lys Lys Val Leu Lys Lys His Asn		
690	695	700
Asp Asp Phe Glu Met Thr Ser Phe Trp Leu Ser Asn Thr Cys Arg Leu		
705	710	715
Leu His Cys Leu Lys Gln Tyr Ser Gly Asp Glu Gly Phe Met Thr Gln		
725	730	735
Asn Thr Ala Lys Gln Asn Glu His Cys Leu Lys Asn Phe Asp Leu Thr		
740	745	750
Glu Tyr Arg Gln Val Leu Ser Asp Leu Ser Ile Gln Ile Tyr Gln Gln		
755	760	765
Leu Ile Lys Ile Ala Glu Gly Val Leu Gln Pro Met Ile Val Ser Ala		
770	775	780
Met Leu Glu Asn Glu Ser Ile Gln Gly Leu Ser Gly Val Lys Pro Thr		
785	790	795
Gly Tyr Arg Lys Arg Ser Ser Ser Met Ala Asp Gly Asp Asn Ser Tyr		

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<210> 3285
<211> 1518
<212> DNA
<213> Homo sapiens
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<400> 3285
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120
ggtttcacca ctgcctcctt tggcaacttg agtgggtggg ttcccaccga gtttatggct
180
gcaagatag gtcttttctc gtattttatgt ataaacagg accagttttg attttattta
240
atcatttcat acattaacat acatgacaca tcaaaatgag aaatgcacag tttaaccgtt
300
caacagctgg ccttacttca aaagaacact atattcatat taaacattta cagtctttcc
360
atctaacttt acacatgtcc taaatcattt tccagcactt ctcacataga agtctagttt
420
tgctctttta aatcaccatc tgtatcacc ctagtagacg cgagggtttc cccaattaca
480
tgctgaagag agccagccac caccacacct aaagacatcc aagcagctcc agagcctgcc
540
tccgaggcca ccccttcgcc acggcagctc cgattccaag aactgattat ctgacactag
600
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tgaaccagca ctaaaggctg taggatgtga ctacatcaca gttccagaag gaaggggacc
 660
 atggccaaga gaagccctaa atgacagaag ctcattaaaa ccaagtcccc caaacctcct
 720
 gaaacatcgt tagcaaggag ctactgcttt cctttcttaa acatgttttg ggcattgacca
 780
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 840
 ctgtgtgaaa cttgagaatg tctgattaaa gatttcaatg tatatctaaa aactaactca
 900
 aatcgttgac cagcactttc ccagtatcat aacaatgcgg ctgaccctct tctgccttca
 960
 ctttacaccc catcatagca cattatttgt gcacaactag tgaggctctgt gcggctcatc
 1020
 atccccataa ccaagtcggt ctgtgttgag tcatatcatt ctgtgctggt tttagaagtc
 1080
 accataggaa acatgaagtc acatcctggt caaaaaactg tccatttctc aaaaacagag
 1140
 aaaaacctga gatacgaggc agcaactagc gacacttaca ggaagggaaa gaacaatgac
 1200
 aacacccgcc cagccccacc cccaaaaagc tgctgttggt aattaaggct tcaaaagagg
 1260
 acccacactg tagctgataa aactcaagcc aggaggatgt ttgaaagcca atctgcacta
 1320
 tcacttgctc cagtgcctc ctatgttcag ctgccaggac cgattccata cagtgttgt
 1380
 aggttgagga ctgaggacgc ccctttgctc tcgctccatt ttgatttgct ttttccactg
 1440
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 1500
 actgatcaaa actcaatt
 1518

<210> 3286

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3286

Met	Lys	Ser	His	Pro	Gly	Gln	Lys	Thr	Val	His	Phe	Ser	Lys	Thr	Glu
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Lys	Asn	Leu	Arg	Tyr	Glu	Ala	Ala	Thr	Ser	Asp	Thr	Tyr	Arg	Lys	Gly
			20					25					30		
Lys	Asn	Asn	Asp	Asn	Thr	Arg	Pro	Ala	Pro	Pro	Pro	Lys	Ser	Cys	Cys
			35				40					45			
Cys	Glu	Leu	Arg	Leu	Gln	Lys	Arg	Thr	His	Thr	Val	Ala	Asp	Lys	Thr
	50					55					60				
Gln	Ala	Arg	Arg	Met	Phe	Glu	Ser	Gln	Ser	Ala	Leu	Ser	Leu	Val	Pro
65				70				75						80	
Val	Thr	Ser	Tyr	Val	Gln	Leu	Pro	Gly	Pro	Ile	Pro	Tyr	Ser	Asp	Cys
			85					90					95		
Arg	Leu	Arg	Thr	Glu	Asp	Ala	Pro	Leu	Leu	Ser	Leu	His	Phe	Asp	Leu
			100					105					110		
Leu	Phe	Pro	Leu	Lys	Thr	Arg	Arg	Pro	Ala	Phe	Pro	Lys	Thr	Ala	Trp

115 120 125
 Pro Trp Leu Cys Thr Leu Phe Thr Thr Asp Gln Asn Ser Ile
 130 135 140

<210> 3287
 <211> 921
 <212> DNA
 <213> Homo sapiens

<400> 3287
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 120
 gcgtaagccc aatccgggaa actcgttgcc cctctcctgg gaaaggaacg tccctcccca
 180
 ggggttgcgag tgactcgggc accatcaccg tgtgctgtaa agacctgcca gtgctgcagc
 240
 tggaaataga gggcgcgga ggcagcgtgg gcacgcgccg ctccatcgag gtgtgccgag
 300
 ggagctcccg agccctttaa gctctccctg tctcgcgtag aggggaataa aaaggtgctt
 360
 ctgttcaaag aggtccgca gccgcagcta aatggcaggg ggatgcaggg tgggtccggg
 420
 tacttgaga ggccgaagct gaagctacag gactgagggg ctggaaaggg cgcgggagag
 480
 acaattccga cctcccccag agcccctgac ttccttctcc ggacgtgtc ctccctggaa
 540
 tcagtcatca cctccttccc tttattctac cgtcccaagg gcctgagatt gggcgactcc
 600
 tggcacttcc tcccggcga actctactgc aagagagtag ctgcggaagt gggcgcggtc
 660
 gtaggggccc gggaaggtgg aagcgccggg cctggaagag gcgcggggac agggcactcc
 720
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 780
 aggctggagg gggcttggca gccaaagctaa ttcgggagaa tttctatgat tatgattttt
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 ttattaaata gttataaaaa aatagggtat acaatttaaa ggactcttag tttaaaacaa
 900
 aatctattct gagaactctt c
 921

<210> 3288
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 3288
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 1 5 10 15
 Leu Gly Arg Val Gly Ile Val Ser Pro Ala Pro Phe Pro Ala Pro Gln
 20 25 30
 Ser Cys Ser Phe Ser Phe Gly Leu Ser Lys Tyr Pro Gly Pro Pro Cys

```

      35              40              45
Ile Pro Leu Pro Phe Ser Cys Gly Cys Gly Ala Ser Leu Asn Arg Ser
      50              55              60
Thr Phe Leu Phe Pro Ser Thr Arg Asp Arg Glu Ser Leu Lys Gly Ser
65              70              75              80
Gly Ala Pro Ser Ala His Leu Asp Gly Ala Gly Asp Ala Gln Arg Arg
      85              90              95
Phe Arg Ala Leu Tyr Phe Gln Leu Gln His Ser Gln Val Phe Thr Ala
      100             105             110
Gln Gly Asp Gly Ala Arg Val Thr Arg Asn Pro Gly Glu Gly Arg Ser
      115             120             125
Phe Pro Arg Arg Gly Ala Thr Ser Phe Pro Asp Trp Ala Tyr Ala Gly
      130             135             140
Gly Arg Gln Leu
145

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<210> 3289

<211> 554

<212> DNA

<213> Homo sapiens

<400> 3289

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cacagcatgg actcttcctt gtgtcccggt cctgccttcg cctcctccca gctcttctct
120
cccagcctcc tagcccaata tcagggccgg aggcactgga gaacttcggg ctaaggcagg
180
cctcccctcc cattcacaga gccctgccag ggtggctggc aatgggtgaag tccagggcag
240
agatggggac agagggggacg ccttggattc gactctgtgg tgggtggacc acctccctga
300
gaccaggcat ccacgtcggg cagcacatgc taccagtcac acagaagagg aaacagaggc
360
tccgagagga agggactgtg tccagggcgg gaccagggcc cttctgcact ggggtcaatga
420
gccaaagcaca tcaccccagc ccttggggag caggagccgg gccttgcagg gtgaggagct
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ataagctgca attg
554

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<210> 3290

<211> 129

<212> PRT

<213> Homo sapiens

<400> 3290

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Met Ile Pro Gly Cys Leu Pro Trp Ser Phe Ala Phe Pro Ser Ser Ser
  1              5              10              15
Pro Cys Lys Ala Arg Leu Leu Leu Pro Lys Gly Trp Gly Asp Val Leu
      20              25              30
Gly Ser Leu Thr Gln Cys Arg Arg Ala Trp Val Pro Pro Trp Thr Gln

```

```

          35          40          45
Ser Leu Pro Leu Gly Ala Ser Val Ser Ser Ser Val Asp Trp Val Ala
  50          55          60
Cys Ala Ala Arg Arg Gly Cys Leu Val Ser Gly Arg Trp Ser Thr His
  65          70          75          80
His Arg Val Glu Ser Lys Ala Ser Pro Leu Ser Pro Ser Leu Pro Trp
          85          90          95
Thr Ser Pro Leu Pro Ala Thr Leu Ala Gly Leu Cys Glu Trp Glu Gly
          100          105          110
Arg Pro Ala Leu Ala Gly Ser Ser Pro Val Pro Pro Ala Leu Ile Leu
          115          120          125
Gly

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<210> 3291

<211> 1075

<212> DNA

<213> Homo sapiens

<400> 3291

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  120
tgggccccct ctcccgccac gcctgcggtg aggtcccccg ccccgctctcc taccatagct
  180
gcctctgtcc ctccgcactg gctgttcacc tggctagctg tgtccgttcc tcaaccggga
  240
agcgagtctn ggcgtcgacc gctgccgcca cccagttac cccctccac cccgcccgtc
  300
cttccctagc ctacatagcc cttggccatg gcccgccctg gtcccacctc tgatgtcccg
  360
ccccccacag gtggacagac gccttcgnnt gggcctgagc acttgcgggc ggcacatgtc
  420
cgctcacgcg gtgtccgggg ccctggcgcg ggtcctggaa gtaccctagc gggccacacc
  480
ctgacagccg agctgatggc gcaccccggc taccctagtg tgcctccacc ggcggctgcg
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ccgcgccacg gctgcggggc cagcttgccc aggatggcgt gcagctttgc gccctcgacg
  660
acctggactc caagaggcca ggggaggagg tccctgtga gccactctg gaacccttcc
  720
tggaaccctc ccnntactct gacccctac agacaaccaa gcactaatcc ccttagtacc
  780
aagaaagggg agccaggatt tagtcttggc ccagcccaga gctgggacct ggagcacgat
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  900
tggcatctag agtttgagca gccttcttgg ctgcaggcag gcctagcctg tggcagcggg
  960
ctagggcccc cagagcattt ggtgccctc catgttgcaa tgcaaacc ttcaccactg
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1075

<210> 3292

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3292

Xaa	Xaa	Met	Gly	Cys	Ala	Leu	Arg	Asp	Cys	Arg	Trp	Ser	Ala	Val	Trp
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Val	Ala	Ala	Leu	Gly	Trp	Arg	Pro	Pro	Arg	Val	Pro	Ser	Pro	Ala	Pro
		20						25					30		
Trp	Ser	Ala	Thr	Pro	Gly	Pro	Pro	Trp	Ala	Pro	Ser	Pro	Ala	Thr	Pro
		35				40						45			
Ala	Val	Arg	Leu	Pro	Ala	Pro	Ser	Pro	Thr	Ile	Ala	Ala	Ser	Val	Pro
	50					55				60					
Pro	His	Trp	Leu	Phe	Thr	Trp	Leu	Ala	Val	Ser	Val	Ser	Gln	Pro	Gly
65					70					75				80	
Ser	Glu	Ser	Xaa	Arg	Arg	Pro	Leu	Pro	Pro	Pro	Gln	Leu	Pro	Pro	Pro
			85					90						95	
Thr	Pro	Pro	Ser	Leu	Pro										
				100											

<210> 3293

<211> 2362

<212> DNA

<213> Homo sapiens

<400> 3293

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120
gcaggacgcc gacacctacc cctcagcaga cgccggagag aaatgagtag caacaaagag
180
cagcggtcag cagtgttcgt gatcctcttt gccctcatca ccaccccat cctctacagc
240
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660
cagcgagcgg gcctggtgtt cccaacatg gaagcatatg ccgtctctcc cggccgcatg
720

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780
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840
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900
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960
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1020
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1080
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1440
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1920
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1980
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2340

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2362

<210> 3294

<211> 353

<212> PRT

<213> Homo sapiens

<400> 3294

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Gln	Arg	Gly	His	Met	Ala	Cys	Ser	Arg	Pro	Pro	Ser	Gln	Cys	Glu	Pro	20	25	30	
Thr	Ser	Leu	Pro	Pro	Gly	Pro	Pro	Ala	Gly	Arg	Arg	His	Leu	Pro	Leu	35	40	45	
Ser	Arg	Arg	Arg	Arg	Glu	Met	Ser	Ser	Asn	Lys	Glu	Gln	Arg	Ser	Ala	50	55	60	
Val	Phe	Val	Ile	Leu	Phe	Ala	Leu	Ile	Thr	Ile	Leu	Ile	Leu	Tyr	Ser	65	70	75	80
Ser	Asn	Ser	Ala	Asn	Glu	Val	Phe	His	Tyr	Gly	Ser	Leu	Arg	Gly	Arg	85	90	95	
Ser	Arg	Arg	Pro	Val	Asn	Leu	Lys	Lys	Trp	Ser	Ile	Thr	Asp	Gly	Tyr	100	105	110	
Val	Pro	Ile	Leu	Gly	Asn	Lys	Thr	Leu	Pro	Ser	Arg	Cys	His	Gln	Cys	115	120	125	
Val	Ile	Val	Ser	Ser	Ser	Ser	His	Leu	Leu	Gly	Thr	Lys	Leu	Gly	Pro	130	135	140	
Glu	Ile	Glu	Arg	Ala	Glu	Cys	Thr	Ile	Arg	Met	Asn	Asp	Ala	Pro	Thr	145	150	155	160
Thr	Gly	Tyr	Ser	Ala	Asp	Val	Gly	Asn	Lys	Thr	Thr	Tyr	Arg	Val	Val	165	170	175	
Ala	His	Ser	Ser	Val	Phe	Arg	Val	Leu	Arg	Arg	Pro	Gln	Glu	Phe	Val	180	185	190	
Asn	Arg	Thr	Pro	Glu	Thr	Val	Phe	Ile	Phe	Trp	Gly	Pro	Pro	Ser	Lys	195	200	205	
Met	Gln	Lys	Pro	Gln	Gly	Ser	Leu	Val	Arg	Val	Ile	Gln	Arg	Ala	Gly	210	215	220	
Leu	Val	Phe	Pro	Asn	Met	Glu	Ala	Tyr	Ala	Val	Ser	Pro	Gly	Arg	Met	225	230	235	240
Arg	Gln	Phe	Asp	Asp	Leu	Phe	Arg	Gly	Glu	Thr	Gly	Lys	Asp	Arg	Glu	245	250	255	
Lys	Ser	His	Ser	Trp	Leu	Ser	Thr	Gly	Trp	Phe	Thr	Met	Val	Ile	Ala	260	265	270	
Val	Glu	Leu	Cys	Asp	His	Val	His	Val	Tyr	Gly	Met	Val	Pro	Pro	Asn	275	280	285	
Tyr	Cys	Ser	Gln	Arg	Pro	Arg	Leu	Gln	Arg	Met	Pro	Tyr	His	Tyr	Tyr	290	295	300	
Glu	Pro	Lys	Gly	Pro	Asp	Glu	Cys	Val	Thr	Tyr	Ile	Gln	Asn	Glu	His	305	310	315	320
Ser	Arg	Lys	Gly	Asn	His	His	Arg	Phe	Ile	Thr	Glu	Lys	Arg	Val	Phe	325	330	335	
Ser	Ser	Trp	Ala	Gln	Leu	Tyr	Gly	Ile	Thr	Phe	Ser	His	Pro	Ser	Trp	340	345	350	
Thr																			

<210> 3295
 <211> 690
 <212> DNA
 <213> Homo sapiens

<400> 3295
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 120
 gtcagactca ttttcagcct cattaggcag cagacggaga tggagggagg agagcaggag
 180
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 240
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 300
 atgctgcatt aggcacagga taacctggga acccaggcac atgggtcctg ctctccgaag
 360
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 420
 tagtggcttt acagtgggta ccctgtcaga aaccagcact gggggccctg ccacccccac
 480
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 540
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 660
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 690

<210> 3296
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3296
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 Leu Trp Glu Arg Pro Gly Cys Cys Ile Arg His Arg Ile Thr Trp Glu
 20 25 30
 Pro Arg His Met Gly Pro Ala Leu Arg Ser Leu Gln Val Lys Lys Gly
 35 40 45
 Thr Glu His Ala Asp Pro Leu Pro Phe Pro Ser Val Ser Leu Ser Gly
 50 55 60
 Phe Thr Val Gly Thr Leu Ser Glu Thr Ser Thr Gly Gly Pro Ala Thr
 65 70 75 80
 Pro Thr Trp Lys Glu Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu
 85 90 95
 Ser Asp Lys Asp Ala Leu Glu Asp His Met Asp Gly His Phe Phe Phe
 100 105 110
 Ser Thr Gln Gly Pro Leu His Leu

115

120

<210> 3297

<211> 3176

<212> DNA

<213> Homo sapiens

<400> 3297

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120
ctgcctcagc ctcccaagta gctgggatta taggtgcccg ccacctgcc tggetaattt
180
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420
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480
tacagttgag tgaaagtga gacagttcaga tggcttgact aaggttacct ggcatttgag
540
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600
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660
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720
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780
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<211> 251

<212> PRT

<213> Homo sapiens

<400> 3298

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			20					25					30		
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<211> 1387

<212> DNA

<213> Homo sapiens

<400> 3299

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<211> 219

<212> PRT

<213> Homo sapiens

<400> 3300

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Ser Ile Gln Gln Phe Thr Glu Met Asn Leu Leu Ser Asp Tyr Arg Phe
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Leu Glu Asp Val Ala Arg Thr Ala Asp His Ile Ser Arg Asp Ala Phe
      65           70           75           80
Leu Lys Arg Pro Ile Ser Asn Lys Tyr Met Tyr Phe Met Lys Asn Arg
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Ala Arg Ser Lys Gly Ile Asn Leu Lys Leu Leu Pro Asn Gly Phe Thr
      100          105          110
Lys Arg Lys Glu Asn Ser Thr Phe Phe Asp Lys Lys Lys Gln Gln Phe
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Cys Trp His Val Lys Leu Gln Phe Pro Gln Ser Gln Ala Glu Tyr Ile
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Glu Lys Arg Val Pro Asp Asp Lys Thr Ile Asn Glu Ile Leu Lys Pro
      145          150          155          160
Tyr Ile Asp Pro Glu Lys Ser Asp Pro Val Ile Arg Gln Arg Leu Lys
      165          170          175
Ala Tyr Ile Arg Ser Gln Thr Gly Val Gln Ile Leu Met Lys Ile Glu
      180          185          190
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<210> 3301

<211> 2109

<212> DNA

<213> Homo sapiens

<400> 3301

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<211> 323

<212> PRT

<213> Homo sapiens

<400> 3302

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Gln Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser
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Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val
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Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro
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Met Lys Val Lys Phe Thr His Gly Gly Thr Gly Ser Ser Gln Thr Ala
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Pro Thr Cys Gly Arg Glu Ser Ser Pro Arg Glu Thr Lys Leu Arg Met
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Ala Ser Met Glu Ser Pro Xaa Val Asn Ala Phe Pro Ala Gln Asn Asn
          145          150          155          160
Tyr Gly Leu Tyr Asp Leu Leu Gly Asn Val Trp Glu Trp Thr Ala Ser
          165          170          175
Pro Tyr Gln Ala Ala Glu Gln Asp Met Arg Val Leu Arg Gly His Pro
          180          185          190
Gly Ser Thr Gln Leu Met Ala Leu Pro Ile Thr Gly Pro Gly Ser Pro
          195          200          205
Pro Gly Trp Ala Thr Leu Gln Ile Gln Pro Gln Thr Thr Ser Val Ser
          210          215          220
Ala Val Leu Gln Thr Gln Ala Gly Arg Gln Gly Ser Cys Lys Gln Pro
          225          230          235          240
Gly Gly Asp Lys Glu Lys Ser Leu Leu Gly Ser Leu Ser Phe Pro Gly
          245          250          255
His Val Ala Asn Ser Ala Ile Pro Ser Ser Arg Ala Ser Ala Ser Gly
          260          265          270
Lys Asn Phe Pro Phe Pro Val Ser His Pro Ser Val Ala Gly Ala Ser
          275          280          285
His Gln Gly Arg Arg Gly Leu Ser Leu Leu Cys Phe Gly Glu Gly Ala
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<210> 3303

<211> 699

<212> DNA

<213> Homo sapiens

<400> 3303

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<211> 233

<212> PRT

<213> Homo sapiens

<400> 3304

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Asp	Arg	Arg	Ser	Thr	Glu	Pro	Ser	Val	Thr	Pro	Asp	Leu	Leu	Asn	Phe
			35					40				45			
Lys	Lys	Gly	Trp	Leu	Thr	Lys	Gln	Tyr	Glu	Asp	Gly	Gln	Trp	Lys	Lys
			50				55				60				
His	Trp	Phe	Val	Leu	Ala	Asp	Gln	Ser	Leu	Arg	Tyr	Tyr	Arg	Asp	Ser
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Val	Ala	Glu	Glu	Ala	Ala	Asp	Leu	Asp	Gly	Glu	Ile	Asp	Leu	Ser	Ala
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Cys	Tyr	Asp	Val	Thr	Glu	Tyr	Pro	Val	Gln	Arg	Asn	Tyr	Gly	Phe	Gln
			100					105					110		
Ile	His	Thr	Lys	Glu	Gly	Glu	Phe	Thr	Leu	Ser	Ala	Met	Thr	Ser	Gly
			115				120					125			
Ile	Arg	Arg	Asn	Trp	Ile	Gln	Thr	Ile	Met	Lys	His	Val	His	Pro	Thr
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<212> DNA

<213> Homo sapiens

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 1980
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 2160
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 2220
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 2280
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 2340
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 2400
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 2460
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 2520
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 2580
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 2717

<210> 3306

<211> 319
 <212> PRT
 <213> Homo sapiens

<400> 3306

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Ile Ser Leu Val Met Lys Thr Pro Arg Val Ala Lys Asn Glu Ala Leu
 35           40           45
Trp His Pro Thr Leu Asn Leu Pro Leu Ser Pro Gln Gly Thr Val Arg
 50           55           60
Thr Ala Val Glu Phe Gln Val Met Thr Gln Thr Gln Ser Leu Ser Phe
 65           70           75           80
Leu Leu Gly Ser Ser Ala Ser Leu Asp Cys Gly Phe Ser Met Ala Pro
 85           90           95
Gly Leu Asp Leu Ile Ser Val Glu Trp Arg Leu Gln His Lys Gly Arg
 100          105          110
Gly Gln Leu Val Tyr Ser Trp Thr Ala Gly Gln Gly Gln Ala Val Arg
 115          120          125
Lys Gly Ala Thr Leu Xaa Ala Cys Thr Thr Gly His Gly Xaa Arg Asp
 130          135          140
Ala Ser Leu Thr Leu Pro Gly Leu Thr Ile Gln Asp Glu Gly Thr Tyr
 145          150          155          160
Ile Cys Gln Ile Thr Thr Ser Leu Tyr Arg Ala Gln Gln Ile Ile Gln
 165          170          175
Leu Asn Ile Gln Ala Ser Pro Lys Val Arg Leu Ser Leu Ala Asn Glu
 180          185          190
Ala Leu Leu Pro Thr Leu Ile Cys Asp Ile Ala Gly Tyr Tyr Pro Leu
 195          200          205
Asp Val Val Val Thr Trp Thr Arg Glu Glu Leu Gly Gly Ser Pro Ala
 210          215          220
Gln Val Ser Gly Ala Ser Phe Ser Ser Leu Arg Gln Ser Val Ala Gly
 225          230          235          240
Thr Tyr Ser Ile Ser Ser Ser Leu Thr Ala Glu Pro Gly Leu Cys Arg
 245          250          255
Cys His Leu His Leu Pro Gly His Thr His Leu Ser Gly Gly Ala Pro
 260          265          270
Trp Gly Gln His Pro Gly Cys Pro Thr Arg Ala Glu Asn Ser Leu Gly
 275          280          285
Ser His Leu Cys Gln Gln Ser Leu Pro Ser Cys Thr Asp Val Pro Gly
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<210> 3307
 <211> 352
 <212> DNA
 <213> Homo sapiens

<400> 3307

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<210> 3308

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3308

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		20						25					30		
Pro	Arg	Trp	Glu	Pro	Cys	Leu	Gly	Gln	Gly	Gly	Arg	Val	Asp	Gly	Ser
		35					40					45			
Trp	Asp	Cys	Asp	Ile	Gly	Arg	Arg	Gly	Arg	Ser	Pro	Ala	Leu	Ser	Ser
	50					55					60				
Ala	Gly	Trp	Ala	Gly	Ile	His	Leu	Ala	Ala	Ser	Gln	Gly	Leu	Cys	Pro
65					70					75				80	
Ala	Gly	Trp	Ser	Leu	Cys	Cys	Pro	Asn	Gln	Val	Ser	Thr	Phe	Pro	Ala
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Pro	Met	Arg	Arg	Glu	Gly	Gly	Arg	Trp	Trp	Leu	Gly	Trp	Arg		
			100					105					110		

<210> 3309

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3309

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 300
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 360
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 480

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 600
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 737

<210> 3310

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3310

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			20					25					30		
Ala	Gln	Leu	Glu	Glu	Gln	Phe	Tyr	Leu	Gln	Ala	Leu	Lys	Leu	Pro	Asn
	35						40					45			
Gln	Thr	His	Pro	Asp	Val	Pro	Val	Gly	Asp	Glu	Ser	Gln	Ala	Arg	Val
	50					55					60				
Leu	His	Met	Val	Gly	Asp	Lys	Pro	Val	Phe	Ser	Phe	Gln	Pro	Arg	Gly
65					70					75				80	
His	Leu	Glu	Ile	Gly	Glu	Lys	Leu	Asp	Ile	Ile	Arg	Gln	Lys	Arg	Leu
			85						90					95	
Ser	His	Val	Ser	Gly	His	Arg	Ser	Tyr	Tyr	Leu	Arg	Gly	Ala	Gly	Ala
			100					105					110		
Leu	Leu	Gln	His	Gly	Leu	Val	Asn	Phe	Thr	Phe	Asn	Lys	Leu	Leu	Arg
	115						120					125			
Arg	Gly	Phe	Thr	Pro	Met	Thr	Val	Pro	Asp	Leu	Leu	Arg	Gly	Ala	Val
	130					135						140			
Phe	Glu	Gly	Cys	Gly	Met	Thr	Pro	Asn	Ala	Asn	Pro	Ser	Gln	Ile	Tyr
145					150					155				160	
Asn	Ile	Asp	Pro	Ala	Arg	Phe	Lys	Asp	Leu	Asn	Leu	Ala	Gly	Thr	Ala
			165						170					175	
Glu	Val	Gly	Leu	Ala	Gly	Tyr	Phe	Met	Asp	His	Thr	Val	Ala	Phe	Arg
	180							185					190		
Asp	Leu	Pro	Val	Arg	Met	Val	Cys	Ser	Ser	Thr	Cys	Tyr	Arg	Ala	Glu
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Thr	Asn														
210															

<210> 3311

<211> 486

<212> DNA

<213> Homo sapiens

<400> 3311

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<210> 3312

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3312

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Ala	Glu	Gly	Gly	Tyr	Gln	Arg	Tyr	Gly	Val	Arg	Ser	Tyr	Leu	His	Gln
		20						25				30			
Phe	Tyr	Glu	Asp	Cys	Thr	Ala	Ser	Ile	Trp	Glu	Tyr	Glu	Asp	Asp	Phe
	35						40				45				
Gln	Ile	Gln	Arg	Ser	Pro	Asn	Arg	Trp	Ser	Ser	Val	Phe	Trp	Lys	Val
	50					55				60					
Gly	Leu	Ile	Ser	Gly	Thr	Val	Phe	Val	Ile	Leu	Gly	Leu	Thr	Val	Leu
65				70					75				80		
Ala	Val	Gly	Phe	Leu	Val	Pro	Pro	Lys	Ile	Glu	Ala	Phe	Gly	Glu	Ala
			85					.90					95		
Asp	Phe	Val	Val	Val	Asp										
			100												

<210> 3313

<211> 1791

<212> DNA

<213> Homo sapiens

<400> 3313

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 120
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 180
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 240
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 300

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420
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480
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1791

<210> 3314

<211> 537

<212> PRT

<213> Homo sapiens

<400> 3314

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 Ala Arg Thr Ala Val Lys Arg Arg Pro Gly Ala Gly Arg Val Gly Gly
 35 40 45
 Gly Gly Gly Arg Xaa Arg Ser Arg Gln Pro Glu Gly Leu Arg Ser His
 50 55 60
 His Lys Val Ser Val Ser Pro Val Val His Val Arg Gly Leu Cys Glu
 65 70 75 80
 Ser Val Val Glu Ala Asp Leu Val Glu Ala Leu Glu Lys Phe Gly Thr
 85 90 95
 Ile Cys Tyr Val Met Met Met Pro Phe Lys Arg Gln Ala Leu Val Glu
 100 105 110
 Phe Glu Asn Ile Asp Ser Ala Lys Glu Cys Val Thr Phe Ala Ala Asp
 115 120 125
 Glu Pro Val Tyr Ile Ala Gly Gln Gln Ala Phe Phe Asn Tyr Ser Thr
 130 135 140
 Ser Lys Arg Ile Thr Arg Pro Gly Asn Thr Asp Asp Pro Ser Gly Gly
 145 150 155 160
 Asn Lys Val Leu Leu Leu Ser Ile Gln Asn Pro Leu Tyr Pro Ile Thr
 165 170 175
 Val Asp Val Leu Tyr Thr Val Cys Asn Pro Val Gly Lys Val Gln Arg
 180 185 190
 Ile Val Ile Phe Lys Arg Asn Gly Ile Gln Ala Met Val Glu Phe Glu
 195 200 205
 Ser Val Leu Cys Ala Gln Lys Ala Lys Ala Ala Leu Asn Gly Ala Asp
 210 215 220
 Ile Tyr Ala Gly Cys Cys Thr Leu Lys Ile Glu Tyr Ala Arg Pro Thr
 225 230 235 240
 Arg Leu Asn Val Ile Arg Asn Asp Asn Asp Ser Trp Asp Tyr Thr Lys
 245 250 255
 Pro Tyr Leu Gly Arg Arg Asp Arg Gly Lys Gly Arg Gln Arg Gln Ala
 260 265 270
 Ile Leu Gly Glu His Pro Ser Ser Phe Arg His Asp Gly Tyr Gly Ser
 275 280 285
 His Gly Pro Leu Leu Pro Leu Pro Ser Arg Tyr Arg Met Gly Ser Arg
 290 295 300
 Asp Thr Pro Glu Leu Val Ala Tyr Pro Leu Pro Gln Ala Ser Ser Ser
 305 310 315 320
 Tyr Met His Gly Gly Asn Pro Ser Gly Ser Val Val Met Val Ser Gly
 325 330 335
 Leu His Gln Leu Lys Met Asn Cys Ser Arg Val Phe Asn Leu Phe Cys
 340 345 350
 Leu Tyr Gly Asn Ile Glu Lys Val Lys Phe Met Lys Thr Ile Pro Gly
 355 360 365
 Thr Ala Leu Val Glu Met Gly Asp Glu Tyr Ala Val Glu Arg Ala Val
 370 375 380
 Thr His Leu Asn Asn Val Lys Leu Phe Gly Lys Arg Leu Asn Val Cys
 385 390 395 400
 Val Ser Lys Gln His Ser Val Val Pro Ser Gln Ile Phe Glu Leu Glu

				405				410				415			
Asp	Gly	Thr	Ser	Ser	Tyr	Lys	Asp	Phe	Ala	Met	Ser	Lys	Asn	Asn	Arg
				420				425				430			
Phe	Thr	Ser	Ala	Gly	Gln	Ala	Ser	Lys	Asn	Ile	Ile	Gln	Pro	Pro	Ser
				435				440				445			
Cys	Val	Leu	His	Tyr	Tyr	Asn	Val	Pro	Leu	Cys	Val	Thr	Glu	Glu	Thr
				450				455				460			
Phe	Thr	Lys	Leu	Cys	Asn	Asp	His	Glu	Val	Leu	Thr	Phe	Ile	Lys	Tyr
				465				470				475			
Lys	Val	Phe	Asp	Ala	Lys	Pro	Ser	Ala	Lys	Thr	Leu	Ser	Gly	Leu	Leu
				485				490				495			
Glu	Trp	Glu	Cys	Lys	Thr	Asp	Ala	Val	Glu	Ala	Leu	Thr	Ala	Leu	Asn
				500				505				510			
His	Tyr	Gln	Ile	Arg	Val	Pro	Asn	Gly	Ser	Asn	Pro	Tyr	Thr	Leu	Lys
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Leu	Cys	Phe	Ser	Thr	Ser	Ser	His	Leu							
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<210> 3315

<211> 934

<212> DNA

<213> Homo sapiens

<400> 3315

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120	gaaggttcaa	ttcacagagc	acttcatatc	taccagggta	atatcaaaat
180	aaaacatccc	tgagttcacc	accttggcca	gaagttgttc	tgccagaccc
240	accagacacc	atgcagaggt	cgtgaagaag	gtgaatgaga	tgatcgtcac
300	ggcaggctct	ttgccgtgg	gcactttgcc	agccgccagt	ggaagggtgac
360	ctgatcttaa	ttggaaatga	actagacctt	gcgtgtggag	agagaattcg
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540	agattcagga	aaaggaaaaa	cttcaagaag	aaaagaatcg	tcacgacccc
600	ctccggataa	acagcattga	gattgctccg	tgtttgttgt	gattaccgag
660	caaaaggata	aaaataaact	cctgcttccc	aaggagacca	ggtttctgtg
720	aagccgtgca	tgccctgttgt	agatagttta	actggagcag	catgtctgta
780	ccccgagcca	gagaaaacag	gaactggggg	agaatgacaa	gcatggccct
840	gataaatagt	attcttggca	gccctccacc	ccatgtggcg	gcggcagggc
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934

<210> 3316
<211> 187
<212> PRT
<213> Homo sapiens

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Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro Glu Val Val Leu
35 40 45
Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu Val Val Lys Lys
50 55 60
Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg Leu Phe Ala Val
65 70 75 80
Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser Glu Asp Leu Ile
85 90 95
Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu Arg Ile Arg Leu
100 105 110
Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr Leu Leu Gly Lys
115 120 125
Pro Leu Leu Gly Lys Asp Leu Val Arg Val Glu Ala Thr Val Ile Glu
130 135 140
Lys Thr Glu Ser Trp Pro Arg Ile Ile Met Arg Phe Arg Lys Arg Lys
145 150 155 160
Asn Phe Lys Lys Lys Arg Ile Val Thr Thr Pro Gln Thr Val Leu Arg
165 170 175
Ile Asn Ser Ile Glu Ile Ala Pro Cys Leu Leu
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<210> 3317
<211> 1665
<212> DNA
<213> Homo sapiens

<400> 3317
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180
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420

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 780
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 840
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 1560
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<210> 3318

<211> 253

<212> PRT

<213> Homo sapiens

<400> 3318

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 Ser Cys Ala Pro Gly Ala Val Val Lys Ala Arg Pro Met Glu Gly Ser
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 Leu Ser Arg Arg Ser Glu Asp Glu Gln Arg Trp Gly Lys Gly Pro Gly
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 Gln Asp Arg Gly Lys Lys Gly Ser Gln Asp Ser Gly Ala Pro Gly Glu
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 Ala Met Glu Arg Leu Gly Arg Ala Gln Arg Cys Asp Asp Ser Pro Ala
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<210> 3319

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 3319

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<211> 256

<212> PRT

<213> Homo sapiens

<400> 3320

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			20					25					30		
Glu	Tyr	Val	Arg	Trp	Met	Met	Tyr	Trp	Ile	Val	Phe	Ala	Leu	Phe	Met
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Tyr	Glu	Ile	Lys	Met	Ala	Phe	Val	Leu	Trp	Leu	Leu	Ser	Pro	Tyr	Thr
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Lys	Gly	Ala	Ser	Leu	Leu	Tyr	Arg	Lys	Phe	Val	His	Pro	Ser	Leu	Ser
				85					90					95	
Arg	His	Glu	Lys	Glu	Ile	Asp	Ala	Tyr	Ile	Val	Gln	Ala	Lys	Glu	Arg
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<211> 454

<212> PRT

<213> Homo sapiens

<400> 3322

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Gly	Met	Asn	Ser	Gly	Gly	Gly	Phe	Gly	Leu	Gly	Leu	Gly	Phe	Gly	Leu
			20					25					30		
Thr	Pro	Thr	Ser	Val	Ile	Gln	Val	Thr	Asn	Leu	Ser	Ser	Ala	Val	Thr
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			50				55					60			
Leu	Arg	Leu	Tyr	Pro	Pro	Asp	Asn	Ala	Pro	Leu	Ala	Phe	Ser	Ser	Lys
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Val	Cys	Tyr	Val	Lys	Phe	Arg	Asp	Pro	Ser	Ser	Val	Gly	Val	Ala	Gln
			85						90					95	
His	Leu	Thr	Asn	Thr	Val	Phe	Ile	Asp	Arg	Ala	Leu	Ile	Val	Val	Pro
			100					105					110		
Cys	Ala	Glu	Gly	Lys	Ile	Pro	Glu	Glu	Ser	Lys	Ala	Leu	Ser	Leu	Leu
			115				120					125			
Ala	Pro	Ala	Pro	Thr	Met	Thr	Ser	Leu	Met	Pro	Gly	Ala	Gly	Leu	Leu
			130				135					140			
Pro	Ile	Pro	Thr	Pro	Asn	Pro	Leu	Thr	Thr	Leu	Gly	Val	Ser	Leu	Ser
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Ser	Leu	Gly	Ala	Ile	Pro	Ala	Ala	Ala	Leu	Asp	Pro	Asn	Ile	Ala	Thr
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Leu	Gly	Glu	Ile	Pro	Gln	Pro	Pro	Leu	Met	Gly	Asn	Val	Asp	Pro	Ser
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<211> 949
<212> DNA
<213> Homo sapiens
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<212> PRT

<213> Homo sapiens

<400> 3324

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	20						25				30				
Thr	Thr	Val	Ile	Pro	Arg	Val	Tyr	Thr	Tyr	Tyr	Val	Ser	Thr	Val	Leu
	35					40					45				
Phe	Ala	Ile	Phe	Gly	Ile	Arg	Met	Leu	Arg	Glu	Gly	Leu	Lys	Met	Ser
	50				55					60					
Pro	Asp	Glu	Gly	Gln	Glu	Glu	Leu	Glu	Glu	Val	Gln	Ala	Glu	Leu	Lys
65				70				75			80				
Lys	Lys	Asp	Glu	Glu	Val	Ser	His	Gly	Thr	Val	Asp	Leu	Asp	Gln	Lys
			85					90			95				
Gly	Thr	Gln	Leu	Gly	Ile	Asn	Thr	Leu	Gln	Arg	Phe	Leu	Ser	Gly	Pro
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<212> DNA

<213> Homo sapiens

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<212> PRT
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35 40 45
His Gln Gln Gln Met Ala Pro Ser Thr Leu Ser Gln Gln Asn Arg Pro
50 55 60
Thr Gln Asn Pro Pro Ala Gly Leu Met Ser Met Pro Asn Ala Leu Thr
65 70 75 80
Thr Gln Gln Gln Gln Gln Gln Lys Leu Arg Leu Gln Arg Ile Gln Met
85 90 95
Glu Arg Glu Arg Ile Arg Met Arg Gln Glu Glu Leu Met Arg Gln Glu
100 105 110
Ala Ala Leu Cys Arg Gln Leu Pro Met Glu Ala Glu Thr Leu Ala Pro
115 120 125
Val Gln Ala Ala Val Asn Pro Pro Thr Met Thr Pro Asp Met Arg Ser
130 135 140
Ile Thr Asn Asn Ser Ser Asp Pro Phe Leu Asn Gly Gly Pro Tyr His
145 150 155 160
Ser Arg Glu Gln Ser Thr Asp Ser Gly Leu Gly Leu Gly Cys Tyr Ser
165 170 175
Val Pro Thr Thr Pro Glu Asp Phe Leu Ser Asn Val Asp Glu Met Asp
180 185 190
Thr Gly Glu Asn Ala Gly Gln Thr Pro Met Asn Ile Asn Pro Gln Gln
195 200 205
Thr Arg Phe Pro Asp Phe Leu Asp Cys Leu Pro Gly Thr Asn Val Asp
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Leu Gly Thr Leu Glu Ser Glu Asp Leu Ile Pro Leu Phe Asn Asp Val
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Glu Ser Ala Leu Asn Lys Ser Glu Pro Phe Leu Thr Trp Leu
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<211> 521

<212> PRT

<213> Homo sapiens

<400> 3328

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			20					25					30		
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			35				40					45			
Ala	Leu	Lys	Ser	Ala	Arg	Asp	Met	Trp	Ala	Asp	Tyr	Ile	Leu	Phe	Val
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Asp	Ala	Asp	Asn	Leu	Ile	Leu	Asn	Pro	Asp	Thr	Leu	Ser	Leu	Leu	Ile
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Ala	Glu	Asn	Lys	Thr	Val	Val	Ala	Pro	Met	Leu	Asp	Ser	Arg	Ala	Ala
				85					90					95	
Tyr	Ser	Asn	Phe	Trp	Cys	Gly	Met	Thr	Ser	Gln	Gly	Tyr	Tyr	Lys	Arg
			100					105					110		
Thr	Pro	Ala	Tyr	Ile	Pro	Ile	Arg	Lys	Arg	Asp	Arg	Arg	Gly	Cys	Phe
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Ser	Phe	Asp	Asp	Ile	Val	Phe	Ala	Phe	Ser	Cys	Lys	Gln	Ala	Glu	
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Val	Gln	Met	Tyr	Val	Cys	Asn	Lys	Glu	Glu	Tyr	Gly	Phe	Leu	Pro	Val
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Thr	Lys	Gly	Glu	Leu	Gly	Cys	Phe	Leu	Ser	His	Tyr	Asn	Ile	Trp
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Val	Ser	Glu	Tyr	Lys	Ala	His	Phe	Ser	Leu	Arg	Asn	Leu	His	Ala
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Val	Lys	Thr	Asp	Trp	Asp	Arg	Ala	Lys	Ser	Gln	Lys	Met	Arg	Glu
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<211> 705

<212> DNA

<213> Homo sapiens

<400> 3329

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120	aatgaccggc	ggctgcacgc	ggagcctgtg	cccactctcg	ccttcacca
180	gctcaagctg	ggatgtacca	ctgcctggct	gagctcccca	ctggggctgc
240	ccagtcatgc	tccgtgtgct	ctacctccc	aagacgcca	ccatgatggt
300	cctgagggtg	gcctccgggg	catcctggat	tgccgagtgg	acagcgagcc
360	ctgactctcc	accttggcag	tcgactggtg	gcctccagtc	agccccaggg
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<210> 3330

<211> 235

<212> PRT

<213> Homo sapiens

<400> 3330

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			20					25					30		
Asn	Ser	Thr	Phe	Ala	Trp	Phe	Trp	Asn	Asp	Arg	Arg	Leu	His	Ala	Glu
		35					40					45			
Pro	Val	Pro	Thr	Leu	Ala	Phe	Thr	His	Val	Ala	Arg	Ala	Gln	Ala	Gly
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Pro	Val	Met	Leu	Arg	Val	Leu	Tyr	Pro	Pro	Lys	Thr	Pro	Thr	Met	Met
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Val	Phe	Val	Glu	Pro	Glu	Gly	Gly	Leu	Arg	Gly	Ile	Leu	Asp	Cys	Arg
			100					105					110		
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		115					120					125			
Leu	Val	Ala	Ser	Ser	Gln	Pro	Gln	Gly	Ala	Pro	Ala	Glu	Pro	His	Ile
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<211> 1644

<212> DNA

<213> Homo sapiens

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<211> 128

<212> PRT

<213> Homo sapiens

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			20					25					30		
Ile	Lys	Ile	Pro	Gly	Cys	Arg	Lys	Gln	Gly	Leu	Val	His	Arg	Thr	His
			35				40					45			
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	50					55				60					
Asp	Lys	Val	Trp	Val	Lys	Leu	Ile	Gly	Arg	Glu	Met	Lys	Asn	Asp	Arg
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Ile	Lys	Val	Ser	Leu	Ser	Met	Lys	Val	Val	Asn	Gln	Gly	Thr	Gly	Lys
			85					90					95		
Asp	Leu	Asp	Pro	Asn	Asn	Val	Ser	Leu	Ser	Lys	Lys	Arg	Gly	Gly	Gly
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<210> 3333

<211> 2422

<212> DNA

<213> Homo sapiens

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<210> 3334
 <211> 672
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 His Met His His Val Arg Asp Arg Glu Met Pro Glu Ala Leu Glu Phe
 50 55 60
 Asn Leu Ser Ala Asn Pro Glu Ser Ser Thr Ile Phe Gln Arg Asn Ser
 65 70 75 80
 Gln Thr Glu Ala Leu Glu Phe Asn Pro Ser Ala Asn Pro Glu Ala Ser
 85 90 95
 Thr Ile Phe Gln Arg Asn Ser Gln Thr Asp Val Val Glu Ile Arg Arg
 100 105 110
 Ser Asn Cys Thr Asn His Val Ser Ala Val Arg Phe Ser Gln Gln Tyr
 115 120 125
 Ser Leu Cys Ser Thr Ile Phe Leu Asp Asp Ser Thr Ala Ile Gln His
 130 135 140
 Tyr Leu Thr Met Thr Ile Ile Ser Val Thr Leu Glu Ile Pro His His
 145 150 155 160
 Ile Thr Gln Arg Asp Ala Asp Arg Thr Leu Ser Ile Pro Asp Glu Gln
 165 170 175
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 180 185 190
 Gly Gly Gly Ser Leu Asn Asn Tyr Ser Ser Ser Ile Pro Ser Thr Pro
 195 200 205
 Ser Thr Ser Gln Glu Asp Pro Gln Phe Ser Val Pro Pro Thr Ala Asn
 210 215 220
 Thr Pro Thr Pro Val Cys Lys Arg Ser Met Arg Trp Ser Asn Leu Phe
 225 230 235 240
 Thr Ser Glu Lys Gly Ser His Pro Asp Lys Glu Arg Lys Ala Pro Glu
 245 250 255
 Asn His Ala Asp Thr Ile Gly Ser Gly Arg Ala Ile Pro Ile Lys Gln
 260 265 270
 Gly Met Leu Leu Lys Arg Ser Gly Lys Trp Leu Lys Thr Trp Lys Lys
 275 280 285
 Lys Tyr Val Thr Leu Cys Ser Asn Gly Met Leu Thr Tyr Tyr Ser Ser
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          355          360          365
Ser Thr Thr Ser Pro Lys Leu Asn Pro Pro Pro Ser Pro His Ala Asn
          370          375          380
Lys Lys Lys His Leu Lys Lys Lys Ser Thr Asn Asn Phe Met Ile Val
          385          390          395          400
Ser Ala Thr Gly Gln Thr Trp His Phe Glu Ala Thr Thr Tyr Glu Glu
          405          410          415
Arg Asp Ala Trp Val Gln Ala Ile Gln Ser Gln Ile Leu Ala Ser Leu
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Glu Ala Met Ala Leu Gln Ser Ile Gln Asn Met Arg Gly Asn Ala His
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          465          470          475          480
Gly Val Leu Met Cys Ile Glu Cys Ser Gly Ile His Arg Ser Leu Gly
          485          490          495
Thr Arg Leu Ser Arg Val Arg Ser Leu Glu Leu Asp Asp Trp Pro Val
          500          505          510
Glu Leu Arg Lys Val Met Ser Ser Ile Gly Asn Glu Leu Ala Asn Ser
          515          520          525
Ile Trp Glu Glu Ser Ser Gln Gly Arg Thr Lys Pro Ser Val Asp Ser
          530          535          540
Thr Arg Glu Glu Lys Glu Arg Trp Ile Arg Ser Lys Tyr Glu Glu Lys
          545          550          555          560
Leu Phe Leu Ala Pro Leu Pro Cys Thr Glu Leu Ser Leu Gly Gln Gln
          565          570          575
Leu Leu Arg Ala Thr Ala Asp Glu Asp Leu Gln Thr Ala Ile Leu Leu
          580          585          590
Leu Ala His Gly Ser Arg Glu Glu Val Asn Glu Thr Cys Gly Glu Gly
          595          600          605
Asp Gly Cys Thr Ala Leu His Leu Ala Cys Arg Lys Gly Asn Val Val
          610          615          620
Leu Ala Gln Leu Leu Ile Trp Tyr Gly Val Asp Val Met Ala Arg Asp
          625          630          635          640
Ala His Gly Asn Thr Ala Leu Thr Tyr Ala Arg Gln Ala Ser Ser Gln
          645          650          655
Glu Cys Ile Asn Val Leu Leu Gln Tyr Gly Cys Pro Asp Lys Cys Val
          660          665          670

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<210> 3335

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3335

nggatccatc acgcgttcag ggcagcggaa ttccggctcc ccagggggca gctcaggcag
 60

ggcctcttca ggagtgaagt ccgggacctc ctccccaggg cctgtctcat gctgtctcgg
 120

cccagactgc ttgttgaagg ggttgagggtg ggccctgccgg aaacggggcca gcttctcatc
 180
 atattccata gcatccacc tgcctgcct gccagggccc aggggctcgc agggacagga
 240
 tggccattcc tctagggtg ctggccacgg aagcctggcc gtgggttcgg cacctgctga
 300
 ccgccgcctc gcatttgccc tgagacaggg ctggacagcc aggattaccg ctgtgccgag
 360
 tgccggggcg ccattctctt gcgggggtgtg cccagtggag ccaggcagtg cgactacacc
 420
 ggccagtact actgcagccc ctgccactgg aacgccctgg ctgtgatccc tgcacgc
 477

<210> 3336

<211> 59

<212> PRT

<213> Homo sapiens

<400> 3336

Pro	Pro	Pro	Arg	Ile	Cys	Pro	Glu	Thr	Gly	Leu	Asp	Ser	Gln	Asp	Tyr
1				5					10					15	
Arg	Cys	Ala	Glu	Cys	Arg	Ala	Pro	Ile	Ser	Leu	Arg	Gly	Val	Pro	Ser
		20						25					30		
Glu	Ala	Arg	Gln	Cys	Asp	Tyr	Thr	Gly	Gln	Tyr	Tyr	Cys	Ser	Pro	Cys
		35					40					45			
His	Trp	Asn	Ala	Leu	Ala	Val	Ile	Pro	Ala	Arg					
	50					55									

<210> 3337

<211> 679

<212> DNA

<213> Homo sapiens

<400> 3337

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 60
 aaaaagagaa agagagacac cccacagaga ggggggaagg aggttagatg gggcagtctt
 120
 agcttagcct ccaaagacac agatagagtg agagagagag acagagagag acacagagac
 180
 agacagagac caaaacagaa gcggcaaacg gcaaaaacga agcagaatca atgcaagtta
 240
 gagaaaaaaaa taaaactaaa catcagagca gggaaaagtc atctactccg tatcacacct
 300
 gtgtattagc ttaaccagaa ataagctgga agaggagtgc agtagcctct cagcccccta
 360
 aagatgttgg tcataccccc tctttcaccg tctgagtcga gaggacacca agccaaacaa
 420
 actgtgcccc aaactgggtc atctagtcct cccaggtcct tccttgctaa ctcgaggaaa
 480
 caaggaaaac caactttgga tggcaacttc aacaaggtaa ccctccttct ttcaatggcc
 540
 agactgatgc ccaactgacaa tggctttgag atgcttggac agcagactgt catgtcaaga
 600

ctgcccagac ccccaccaca ctgtggaaaa gggcagcacc agaccactg gagatgaggg
 660
 tcttgagcca agtgctagc
 679

<210> 3338

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3338

Xaa	Ile	Phe	Leu	Leu	Asn	Asp	Leu	Gly	Ser	Glu	Leu	Cys	Met	Lys	Lys
1			5					10						15	
Lys	Lys	Gly	Lys	Lys	Lys	Arg	Lys	Arg	Asp	Thr	Pro	Gln	Arg	Gly	Gly
		20						25					30		
Lys	Glu	Val	Arg	Trp	Gly	Ser	Leu	Ser	Leu	Ala	Ser	Lys	Asp	Thr	Asp
	35					40						45			
Arg	Val	Arg	Glu	Arg	Asp	Arg	Glu	Arg	His	Arg	Asp	Arg	Gln	Arg	Pro
	50					55					60				
Lys	Gln	Lys	Arg	Gln	Thr	Ala	Lys	Thr	Lys	Gln	Asn	Gln	Cys	Lys	Leu
65				70						75				80	
Glu	Lys	Lys	Ile	Lys	Leu	Asn	Ile	Arg	Ala	Gly	Lys	Ser	His	Leu	Leu
			85					90						95	
Arg	Ile	Thr	Pro	Val	Tyr										
			100												

<210> 3339

<211> 1341

<212> DNA

<213> Homo sapiens

<400> 3339

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 120
 agaagccagt tccatccagg atccactatc tacacaccta tggtacaaca ttatatcaaa
 180
 tctggtatct gaagaaaaga tacacattta atatgttcat ttaagttacg tattttgcag
 240
 aaagattaaa aattcattca cacaaaactc aaaaactgta ttaaaagttt gaatataaaa
 300
 ctcagatcca cctggaatga cttaaagaatg gaagttctgt atccacctgt gttaaaactg
 360
 gtaaagttaa tgatatctgt taccaataaa acgcattcgt ttattcaatg taagtaagtt
 420
 atctaatttt aacaatatgg caccctaaaa accaactgta tttttatgat gaggcacttt
 480
 tgtagtgat gaaacaaaaa gaacaaattt gctgcacact gatgccagcg attttcttca
 540
 gtgattttgg gtatatgcta tgtagtaagt tgcaacaaat accttgctca tttgtataca
 600
 actatccgat atatttttaa tatatatata tatatatggt cttctggctg tagtaatgca
 660

ctgtaaagct atttcacagt gcaaaatgat gaaaccagcc caaatgaagg ctgcataata
 720
 acaattctga tacaagaaaa tattgacaga gttactggaa cgtgtaacag tagttttttt
 780
 acttgctaga gtggacatac ccccagttta aagacagga tgaaactctg ctttagtgcc
 840
 tggggtttca gacagtttat gaggttgggc attcgctgca gaactagcat ttttgcacac
 900
 gttctggaag ctttctccgt ttatttggtc aggtgactgt ggtggatatg aaagaagggg
 960
 cctgtttgtt gaagccaagg tgctggaaga actgcctgtg ttgcaatgaa gagacaaagg
 1020
 tgtgtcggtc gtggctatatt ctcgtgtgct tgggttctct gtctggggat ctccgatttc
 1080
 tcctctgcta aggtcagagg tactggtgct taggcgttcc ctggccagcc agtctgagat
 1140
 ggaaagggtc tgggctgagc attttggttt taaccggttt acagctgaaa gttcagattc
 1200
 tctctccccg ctctgctcat gcactttcca aaaattcaaa acgctgattt cagtagcatc
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 1320
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 1341

<210> 3340

<211> 86

<212> PRT

<213> Homo sapiens

<400> 3340

Met	Ser	Thr	Leu	Ala	Ser	Lys	Lys	Thr	Thr	Val	Thr	Arg	Ser	Ser	Asn
1				5						10				15	
Ser	Val	Asn	Ile	Phe	Leu	Tyr	Gln	Asn	Cys	Tyr	Tyr	Ala	Ala	Phe	Ile
			20					25					30		
Trp	Ala	Gly	Phe	Ile	Ile	Leu	His	Cys	Glu	Ile	Ala	Leu	Gln	Cys	Ile
			35				40					45			
Thr	Thr	Ala	Arg	Arg	Thr	Tyr	Ile	Tyr	Ile	Tyr	Ile	Lys	Asn	Ile	Ser
		50				55					60				
Asp	Ser	Cys	Ile	Gln	Met	Ser	Lys	Val	Phe	Val	Ala	Thr	Tyr	Tyr	Ile
65					70					75					80
Ala	Tyr	Thr	Gln	Asn	His										
					85										

<210> 3341

<211> 1132

<212> DNA

<213> Homo sapiens

<400> 3341

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 120

ctggagcatg accacagacc cattcagga ggctggcgga ctcttcatcc tggacagtcc
 180
 cttactgtat gtcaagtaaa gctgagaatg aagcggagag catcagacag aggagctggg
 240
 gaaacgtcgg ccagggccaa ggctctagga agtgggattt ctggaaataa tgcaaagaga
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 gctggaccat tcataccttg tccccgtctg ggcaactcac cggtgccaag catagtgcag
 360
 tgtttggcga ggaaagatgg cacggatgac ttctatcagc tgaagatcct gaccctggag
 420
 gagagggggg accaaggcat agagagccag gaagagcggc agggcaagat gctgctgcac
 480
 accgagtact cactgctgtc tctcctgcac acgcaggatg gcgtggtgca ccaccacggc
 540
 ctcttccagg accgcacctg tgaaatcgtt gaggacacag aatccagccg gatgggtaag
 600
 aagatgaaga agcgcacctg cctcgtcctg gactgcctct gtgctcatga cttcagcgat
 660
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 720
 agggagactg tggtaatctt ctacgacgtg gtccgcgtgg tggaggccct gcaccagaaa
 780
 aatatcgtgc acagagacct gaagctgggg aacatggtgc tcaacaagag gacacatcgg
 840
 ataaccatca ccaacttctg cctcgggaag catctggtga gcgaggggga cctgctgaag
 900
 gaccagagag ggagccctgc ctacatcagt cccgacgtgc tcagcggccg gccgtaccgt
 960
 ggcaagccca gtgacatgtg ggccctgggc gtggtgctct tcaccatgct gtatggccag
 1020
 ttcccttct acgacagcat cccgcaggag ctcttccgca agatcaaggc tgccgagtat
 1080
 accattcctg aggatggacg ggtttctgag aacaccgtgt gtctcatccg ga
 1132

<210> 3342

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3342

Met	Lys	Arg	Arg	Ala	Ser	Asp	Arg	Gly	Ala	Gly	Glu	Thr	Ser	Ala	Arg
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Ala	Lys	Ala	Leu	Gly	Ser	Gly	Ile	Ser	Gly	Asn	Asn	Ala	Lys	Arg	Ala
		20						25					30		
Gly	Pro	Phe	Ile	Leu	Gly	Pro	Arg	Leu	Gly	Asn	Ser	Pro	Val	Pro	Ser
	35					40						45			
Ile	Val	Gln	Cys	Leu	Ala	Arg	Lys	Asp	Gly	Thr	Asp	Asp	Phe	Tyr	Gln
	50					55					60				
Leu	Lys	Ile	Leu	Thr	Leu	Glu	Glu	Arg	Gly	Asp	Gln	Gly	Ile	Glu	Ser
65				70					75					80	
Gln	Glu	Glu	Arg	Gln	Gly	Lys	Met	Leu	Leu	His	Thr	Glu	Tyr	Ser	Leu
			85					90						95	
Leu	Ser	Leu	Leu	His	Thr	Gln	Asp	Gly	Val	Val	His	His	His	Gly	Leu

	100		105		110										
Phe	Gln	Asp	Arg	Thr	Cys	Glu	Ile	Val	Glu	Asp	Thr	Glu	Ser	Ser	Arg
	115						120					125			
Met	Val	Lys	Lys	Met	Lys	Lys	Arg	Ile	Cys	Leu	Val	Leu	Asp	Cys	Leu
	130					135					140				
Cys	Ala	His	Asp	Phe	Ser	Asp	Lys	Thr	Ala	Asp	Leu	Ile	Asn	Leu	Gln
145					150					155				160	
His	Tyr	Val	Ile	Lys	Glu	Lys	Arg	Leu	Ser	Glu	Arg	Glu	Thr	Val	Val
			165					170					175		
Ile	Phe	Tyr	Asp	Val	Val	Arg	Val	Val	Glu	Ala	Leu	His	Gln	Lys	Asn
	180						185				190				
Ile	Val	His	Arg	Asp	Leu	Lys	Leu	Gly	Asn	Met	Val	Leu	Asn	Lys	Arg
	195					200					205				
Thr	His	Arg	Ile	Thr	Ile	Thr	Asn	Phe	Cys	Leu	Gly	Lys	His	Leu	Val
	210				215						220				
Ser	Glu	Gly	Asp	Leu	Leu	Lys	Asp	Gln	Arg	Gly	Ser	Pro	Ala	Tyr	Ile
225				230						235				240	
Ser	Pro	Asp	Val	Leu	Ser	Gly	Arg	Pro	Tyr	Arg	Gly	Lys	Pro	Ser	Asp
			245					250					255		
Met	Trp	Ala	Leu	Gly	Val	Val	Leu	Phe	Thr	Met	Leu	Tyr	Gly	Gln	Phe
	260						265					270			
Pro	Phe	Tyr	Asp	Ser	Ile	Pro	Gln	Glu	Leu	Phe	Arg	Lys	Ile	Lys	Ala
	275					280					285				
Ala	Glu	Tyr	Thr	Ile	Pro	Glu	Asp	Gly	Arg	Val	Ser	Glu	Asn	Thr	Val
	290					295					300				
Cys	Leu	Ile	Arg												
305															

<210> 3343

<211> 594

<212> DNA

<213> Homo sapiens

<400> 3343

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 120
 ttccagcatga actgggtcgt gggcagcgcg gacctggaga ttatcaacgc caccactggg
 180
 cggaggagct gtggggggccc atcccggctc tgcaagcacg tgctgtctgc acggtgggcg
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 300
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 420
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 540
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 594

<210> 3344

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3344

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Arg Val Met Ser His Arg Met Glu Gly Val Gly Gln Leu Pro Ala Ser
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Tyr Arg His Asn Arg Pro Leu Leu Ser Gly Val Ser Asp Thr Glu Ala
      20             25             30
Arg Gln Pro Gly Lys Ser Pro Pro Phe Ser Met Asn Trp Val Val Gly
      35             40             45
Ser Ala Asp Leu Glu Ile Ile Asn Ala Thr Thr Gly Arg Arg Ser Cys
      50             55             60
Gly Gly Pro Ser Arg Leu Cys Lys His Val Leu Ser Ala Arg Trp Ala
      65             70             75             80
Arg Leu Tyr Gly Arg Leu Ser Thr Arg Thr Pro Ser Pro Gly Asp Thr
      85             90             95
Pro Ser Met Tyr Cys Glu Ala Lys Leu Gly Ala His Thr Tyr Gln Ser
      100            105            110
Val Lys Gln Gln Leu Phe Lys Ala Phe Gln Lys Ala Gly Leu Gly Thr
      115            120            125
Trp Val Arg Lys Pro Pro Glu Gln Gln Gln Phe Leu Leu Thr Leu
      130            135            140

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<210> 3345

<211> 1149

<212> DNA

<213> Homo sapiens

<400> 3345

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180
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240
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300
gtggtgagcc tggtagctgg ggactcatcc tggccctgcc tggccctcag gtgggatgct
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540
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600
gacgtccagc agctgcgcca ggcatcgag gaggcaagc aggtgattct ggagctgccc
660

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gagcagtcgg agaagcagaa ggatgccgtg gtgcgactca tccacctccg gctgaagctc
 720
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 780
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<210> 3346

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3346

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Pro	Phe	Asn	Lys	Gln	Ser	Gly	Pro	Arg	Gln	His	Glu	Gln	Gly	Pro	Gly
			20					25					30		
Glu	Glu	Val	Pro	Asp	Val	Thr	Pro	Glu	Glu	Ala	Leu	Pro	Glu	Leu	Pro
		35					40					45			
Pro	Gly	Glu	Pro	Glu	Phe	Arg	Cys	Pro	Glu	Arg	Val	Met	Asp	Leu	Gly
	50					55					60				
Leu	Ser	Glu	Asp	His	Phe	Ser	Arg	Pro	Val	Gly	Leu	Phe	Leu	Ala	Ser
65					70					75					80
Asp	Val	Gln	Gln	Leu	Arg	Gln	Ala	Ile	Glu	Glu	Cys	Lys	Gln	Val	Ile
			85						90					95	
Leu	Glu	Leu	Pro	Glu	Gln	Ser	Glu	Lys	Gln	Lys	Asp	Ala	Val	Val	Arg
			100					105					110		
Leu	Ile	His	Leu	Arg	Leu	Lys	Leu	Gln	Glu	Leu	Lys	Asp	Pro	Asn	Glu
		115					120					125			
Asp	Glu	Pro	Asn	Ile	Arg	Val	Leu	Leu	Glu	His	Arg	Phe	Tyr	Lys	Glu
	130					135					140				
Lys	Ser	Lys	Ser	Val	Lys	Gln	Thr	Cys	Asp	Lys	Cys	Asn	Thr	Ile	Ile
145					150					155					160
Trp	Gly	Leu	Ile	Gln	Thr	Trp	Tyr	Thr	Cys	Thr	Gly	Cys	Tyr	Tyr	Arg
			165					170						175	
Cys	His	Ser	Lys	Cys	Leu	Asn	Leu	Ile	Ser	Lys	Pro	Cys	Val	Ser	Ser
		180						185					190		
Lys	Val	Ser	His	Gln	Ala	Glu	Tyr	Glu	Leu	Asn	Ile	Cys	Pro	Glu	Thr
	195						200					205			
Gly	Leu	Asp	Ser	Gln	Asp	Tyr	Arg	Cys	Ala	Glu	Cys	Arg	Ala	Pro	Ile
	210				215						220				
Ser	Leu	Arg	Gly	Val	Pro	Ser	Glu	Ala	Arg	Gln	Cys	Asp	Tyr	Thr	Gly

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 1380
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 1440
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 1740
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 1860
 tacatagcag gtaccaggca tttatcagaa gaggccaaagc ttctggttcc catgcagccc
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 2160
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 2267
 <210> 3348
 <211> 288
 <212> PRT
 <213> Homo sapiens

<400> 3348
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 Lys Ile Glu Asp Thr Leu Cys Pro Phe Gly Phe Glu Val Tyr Pro Phe
 20 25 30
 Gln Val Ala Trp Tyr Asn Glu Leu Leu Pro Pro Ala Phe His Leu Pro
 35 40 45
 Leu Pro Gly Pro Thr Leu Ala Phe Leu Val Leu Ser Thr Pro Ala Met
 50 55 60
 Phe Asp Arg Ala Leu Lys Pro Phe Leu Gln Ser Cys His Leu Arg Met
 65 70 75 80
 Leu Thr Asp Pro Val Asp Gln Cys Val Ala Tyr His Leu Gly Arg Val
 85 90 95
 Gly Glu Ser Leu Pro Glu Leu Gln Ile Glu Ile Ile Ala Asp Tyr Glu
 100 105 110

Val His Pro Asn Arg Arg Pro Lys Ile Leu Ala Gln Thr Ala Ala His
 115 120 125
 Val Ala Gly Ala Ala Tyr Tyr Tyr Gln Arg Gln Asp Val Glu Ala Asp
 130 135 140
 Pro Trp Gly Asn Gln Arg Ile Ser Gly Val Cys Ile His Pro Arg Phe
 145 150 155 160
 Gly Gly Trp Phe Ala Ile Arg Gly Val Val Leu Leu Pro Gly Ile Glu
 165 170 175
 Val Pro Asp Leu Pro Pro Arg Lys Pro His Asp Cys Val Pro Thr Arg
 180 185 190
 Ala Asp Arg Ile Ala Leu Leu Glu Gly Phe Asn Phe His Trp Arg Asp
 195 200 205
 Trp Thr Tyr Arg Asp Ala Val Thr Pro Gln Glu Arg Tyr Ser Glu Glu
 210 215 220
 Gln Lys Ala Tyr Phe Ser Thr Pro Pro Ala Gln Arg Leu Ala Leu Leu
 225 230 235 240
 Gly Leu Ala Gln Pro Ser Glu Lys Pro Ser Ser Pro Ser Pro Asp Leu
 245 250 255
 Pro Phe Thr Thr Pro Ala Pro Lys Lys Pro Gly Asn Pro Ser Arg Ala
 260 265 270
 Arg Ser Trp Leu Ser Pro Arg Val Ser Pro Pro Ala Ser Pro Gly Pro
 275 280 285

<210> 3349

<211> 1132

<212> DNA

<213> Homo sapiens

<400> 3349

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 120
 tcggcccaaa gaaaacctgg agctcatcct gacgcagtcg gtggagagta agggccggggc
 180
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 240
 tcttttaggcc ggaatcgact ccttcctcag ggactggctg tatatgcac ccctgaaaac
 300
 aagaagctgt ttgaagagga gaaattgctg agacaagaag gaaaattaga gaagatccag
 360
 accaaggcag gtgaggcgac agtgaaattt ctaaaaagct gtcgcctgga ggtagggatg
 420
 aagaacaatg tcaaatggga gctgaaccct gaaatagttg cccgccactt ctttaagaat
 480
 cttggtgttg tggttgcccc acatacatta aagttaccag cagagcctat cacacgggtg
 540
 ggcgagtatt ggtgtgaggt gacggtaaat gggcttgata ctgtgagagt gcctatgtct
 600
 gtcgtgaact ttgagaagcc caagaccaa agatataagt actgggttagc ccagcaagct
 660
 gccaaggcta tggcccccac cagcccccag atctaaatct actctccctc caaggcagca
 720

aagcagaatc gggagcagtg gagcagaaat gtgcaagcac cctgatctca ctcccagctc
 780
 tgaccaaata cagaatttta gagaacatct gaagacatca gactgcactg cgtatacatg
 840
 ttgaattctt catttttgcc atctttaact gtcactactg gggcagggaa gtctgttcc
 900
 agaagtacca ggctgtagat ttgataagct agatgcagta gaccgaaacc atccaaaacc
 960
 tgttttagctt cttcctccat tggagtttat tgggacaaac aggagagcca gccattgtct
 1020
 ccagtacttg cctcattctc atcatccaaa ctgaacattt gtatcccaag cagaataaaa
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 1132

<210> 3350

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3350

Gly	Pro	Gly	Arg	Gly	Ala	Ser	Ser	Gln	Ala	Asp	Val	Gly	Val	Arg	Gly
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Asp	Leu	Val	Ser	Val	Lys	Lys	Ser	Leu	Gly	Arg	Asn	Arg	Leu	Leu	Pro
			20					25					30		
Gln	Gly	Leu	Ala	Val	Tyr	Ala	Ser	Pro	Glu	Asn	Lys	Lys	Leu	Phe	Glu
		35					40					45			
Glu	Glu	Lys	Leu	Leu	Arg	Gln	Glu	Gly	Lys	Leu	Glu	Lys	Ile	Gln	Thr
	50					55				60					
Lys	Ala	Gly	Glu	Ala	Thr	Val	Lys	Phe	Leu	Lys	Ser	Cys	Arg	Leu	Glu
65					70				75					80	
Val	Gly	Met	Lys	Asn	Asn	Val	Lys	Trp	Glu	Leu	Asn	Pro	Glu	Ile	Val
			85					90					95		
Ala	Arg	His	Phe	Phe	Lys	Asn	Leu	Gly	Val	Val	Val	Ala	Pro	His	Thr
			100					105					110		
Leu	Lys	Leu	Pro	Ala	Glu	Pro	Ile	Thr	Arg	Trp	Gly	Glu	Tyr	Trp	Cys
		115					120					125			
Glu	Val	Thr	Val	Asn	Gly	Leu	Asp	Thr	Val	Arg	Val	Pro	Met	Ser	Val
	130					135					140				
Val	Asn	Phe	Glu	Lys	Pro	Lys	Thr	Lys	Arg	Tyr	Lys	Tyr	Trp	Leu	Ala
145				150					155					160	
Gln	Gln	Ala	Ala	Lys	Ala	Met	Ala	Pro	Thr	Ser	Pro	Gln	Ile		
				165					170						

<210> 3351

<211> 1422

<212> DNA

<213> Homo sapiens

<400> 3351

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 120

atgatgctct tagctccaat aattcatggt ggcaagcaca gtgaacgaca tcctgccctc
 180
 gctgctgcgc cgcgatgcgc tgagcgccgc caaggagggtg ttgtaccacc tggacatcta
 240
 cttcagcagc cagctgcaga gcgcgccgct gcccatcgtg gacaagggcc ccgtggagct
 300
 gctggaggag ttcgtgttcc aggtgcccaa ggagcgagc gcgcagccca agagactgaa
 360
 ttcccttcag gagcttcaac ttcttgaaat catgtgcaat tatttccagg agcaaaccaa
 420
 ggactctgtt cggcagatta ttttttcata ccttttcagc cctcaaggga acaaagccga
 480
 tgacagccgg atgagcttgt tgggaaaact ggtctccatg gcggtggctg tgtgtcgaat
 540
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 600
 gttagccaag gcccttgtag atgactactg ctggttggtg ccgggatcca ttcagacgct
 660
 gaagcagata ttcagtcca gcccgagatt ctgctgccag ttcatacct ccgttacgc
 720
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 780
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 840
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 900
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 960
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 1020
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 1080
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 1140
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 1200
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 1260
 cacgagagat gaccttagaa ccttgttctc caggctcccc cgtaataacc tcctccagct
 1320
 ggtgatctcg ggtcccgctgc agcagtcgcc tcacgccgcg ctccccccgg ggttctaccc
 1380
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 1422

<210> 3352

<211> 97

<212> PRT

<213> Homo sapiens

<400> 3352

Met	Trp	Pro	Ser	Gln	Leu	Leu	Ile	Phe	Met	Met	Leu	Leu	Ala	Pro	Ile
1				5				10					15		
Ile	His	Gly	Gly	Lys	His	Ser	Glu	Arg	His	Pro	Ala	Leu	Ala	Ala	Ala

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      20      25      30
Pro Arg Cys Ala Glu Arg Arg Gln Gly Gly Val Val Pro Pro Gly His
      35      40      45
Leu Leu Gln Gln Pro Ala Ala Glu Arg Ala Ala Ala His Arg Gly Gln
      50      55      60
Gly Pro Arg Gly Ala Ala Gly Gly Val Arg Val Pro Gly Ala Gln Gly
65      70      75      80
Ala Gln Arg Ala Ala Gln Glu Thr Glu Phe Pro Ser Gly Ala Ser Thr
      85      90      95
Ser

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<210> 3353

<211> 420

<212> DNA

<213> Homo sapiens

<400> 3353

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120
ggctccctac ctgacctcac caacctgcac tttccccccac cactgcccac cccctgggac
180
cctgaagaga cagcctaccc tagcctgagt gggggcaaca gtacctcaa tttgaccac
240
accatgactc acctgggcat cagcaggggc atgggccttg gccaggcta tgatgcacca
300
gggcgtcccc ctggatacca gtaaactgtc cactgaccag cggttacccc catacccata
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<210> 3354

<211> 107

<212> PRT

<213> Homo sapiens

<400> 3354

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1      5      10      15
Gly Ile Asn Ile Phe Pro Ser Pro Asp Gln Pro Ala Asn Val Pro Val
      20      25      30
Leu Pro Pro Ala Met Asn Thr Gly Gly Ser Leu Pro Asp Leu Thr Asn
      35      40      45
Leu His Phe Pro Pro Pro Leu Pro Thr Pro Leu Asp Pro Glu Glu Thr
      50      55      60
Ala Tyr Pro Ser Leu Ser Gly Gly Asn Ser Thr Ser Asn Leu Thr His
65      70      75      80
Thr Met Thr His Leu Gly Ile Ser Arg Gly Met Gly Leu Gly Pro Gly
      85      90      95
Tyr Asp Ala Pro Gly Arg Pro Pro Gly Tyr Gln
      100      105

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<210> 3355
 <211> 474
 <212> DNA
 <213> Homo sapiens

<400> 3355
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 120
 gacaagagtc atgcttttct ccccatcatt ccaaacaccc agagaggtca gctagaagac
 180
 agactgaaca accaggcgcg taccatagct ttccttcttg aacaagcctt ccgcatcaag
 240
 gaggacatct ctgcttgccct gcaggggacc catggctttc gaaaagagga atcgctcgcc
 300
 aggaagttac tggaaagcca catccagacc atcaccagca tcgtcaaaaa actcagccaa
 360
 aatattgaga ttttagaaga ccaaataaga gctcgagatc aggcggccac aggaactaac
 420
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 474

<210> 3356
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 3356
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 His Ala Phe Leu Pro Ile Ile Pro Asn Thr Gln Arg Gly Gln Leu Glu
 20 25 30
 Asp Arg Leu Asn Asn Gln Ala Arg Thr Ile Ala Phe Leu Leu Glu Gln
 35 40 45
 Ala Phe Arg Ile Lys Glu Asp Ile Ser Ala Cys Leu Gln Gly Thr His
 50 55 60
 Gly Phe Arg Lys Glu Glu Ser Leu Ala Arg Lys Leu Leu Glu Ser His
 65 70 75 80
 Ile Gln Thr Ile Thr Ser Ile Val Lys Lys Leu Ser Gln Asn Ile Glu
 85 90 95
 Ile Leu Glu Asp Gln Ile Arg Ala Arg Asp Gln Ala Ala Thr Gly Thr
 100 105 110
 Asn Phe Ala Val His Glu Ile Asn Ile Lys His Leu Gln Gly Val Gly
 115 120 125
 Arg Ser Phe
 130

<210> 3357
 <211> 2268
 <212> DNA
 <213> Homo sapiens

<400> 3357

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120
agggcctata aaaataattc cttcttgctt acaaagtca gcaaattcca tgttttctga
180
aagaaaaccg catcctggat ggatagcctg tgcagcagag gtcttgcca cttgaatgat
240
tttctccata gataggtagc tctgctggga ggaacgggtt tggcgtgtgg gacgcagctg
300
cctctgtact ggggagtcac ggagtggccg ggctccaggg acatggcggc ggctctgctg
360
gtgtcgggtg tgctggtggc ggcggagagg aaccggtggc atcgtctccc gagcctgctc
420
ctgccgccga ggacatgggt gtggaggcaa agaaccatga agtacacaac agccacagga
480
agaaacatta ccaaggtcct cattgcaaac agaggagaaa ttgcctgcag ggtgatgcgc
540
acagccaaaa aactgggtgt acagactgtg gcggtttata gtgaggctga cagaaattcc
600
atgcatgtag atatggcaga tgaagcatat tccatcggcc ccgctccctc ccagcagagc
660
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720
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780
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840
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900
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960
gtccgggggtg gaggaggaaa aggaatgagg attgttagat cagaacaaga atttcaagaa
1020
cagtttagagt cagcacggag agaagctaag aagtctttca atgatgatgc tatgctgac
1080
gagaagtttg tagacacacc gaggcagtga gaagtccagg tgtttggtga tcaccatggc
1140
aatgctgtgt acttgtttga aagagactgt agtgtgcaga ggcgacatca gaagatcatt
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1440
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tatgcagaag atcctagcaa taacttcatt cctgtggcag gccattagt gcacctctct
1560
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1620

tccgtgcatt atgaccccat gattgcgaag ctggctcgtgt gggcagcaga tcgccaggcg
 1680
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 1740
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 1920
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 1980
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 2040
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 2100
 ttccagacca ctacaataaa atgtagccat agctgtaacg tataacccatg atgggtctta
 2160
 tagcatgcag attgaagata aaactttcca agtccttggg aatctttaca gcgagggaga
 2220
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 2268

<210> 3358

<211> 493

<212> PRT

<213> Homo sapiens

<400> 3358

Gln	Thr	Val	Ala	Val	Tyr	Ser	Glu	Ala	Asp	Arg	Asn	Ser	Met	His	Val
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Asp	Met	Ala	Asp	Glu	Ala	Tyr	Ser	Ile	Gly	Pro	Ala	Pro	Ser	Gln	Gln
			20					25					30		
Ser	Tyr	Leu	Ser	Met	Glu	Lys	Ile	Ile	Gln	Val	Ala	Lys	Thr	Ser	Ala
		35				40						45			
Ala	Gln	Ala	Ile	His	Pro	Gly	Cys	Gly	Phe	Leu	Ser	Glu	Asn	Met	Glu
	50				55					60					
Phe	Ala	Glu	Leu	Cys	Lys	Gln	Glu	Gly	Ile	Ile	Phe	Ile	Gly	Pro	Pro
65					70				75					80	
Pro	Ser	Ala	Ile	Arg	Asp	Met	Gly	Ile	Lys	Ser	Thr	Ser	Lys	Ser	Ile
			85					90						95	
Met	Ala	Ala	Ala	Gly	Val	Pro	Val	Val	Glu	Gly	Tyr	His	Gly	Glu	Asp
			100					105					110		
Gln	Ser	Asp	Gln	Cys	Leu	Lys	Glu	His	Ala	Arg	Arg	Ile	Gly	Tyr	Pro
		115					120					125			
Val	Met	Ile	Lys	Ala	Val	Arg	Gly	Gly	Gly	Gly	Lys	Gly	Met	Arg	Ile
	130					135					140				
Val	Arg	Ser	Glu	Gln	Glu	Phe	Gln	Glu	Gln	Leu	Glu	Ser	Ala	Arg	Arg
145				150						155				160	
Glu	Ala	Lys	Lys	Ser	Phe	Asn	Asp	Asp	Ala	Met	Leu	Ile	Glu	Lys	Phe
			165					170						175	
Val	Asp	Thr	Pro	Arg	His	Val	Glu	Val	Gln	Val	Phe	Gly	Asp	His	His
			180					185					190		
Gly	Asn	Ala	Val	Tyr	Leu	Phe	Glu	Arg	Asp	Cys	Ser	Val	Gln	Arg	Arg

195	200	205
His Gln Lys Ile Ile Glu Glu Ala Pro Ala Pro Gly Ile Lys Ser Glu		
210	215	220
Val Arg Lys Lys Leu Gly Glu Ala Ala Val Arg Ala Ala Lys Ala Val		
225	230	235
Asn Tyr Val Gly Ala Gly Thr Val Glu Phe Ile Met Asp Ser Lys His		
245	250	255
Asn Phe Cys Phe Met Glu Met Asn Thr Arg Leu Gln Val Glu His Pro		
260	265	270
Val Thr Glu Met Ile Thr Gly Thr Asp Leu Val Glu Trp Gln Leu Arg		
275	280	285
Ile Ala Ala Gly Glu Lys Ile Pro Leu Ser Gln Glu Glu Ile Thr Leu		
290	295	300
Gln Gly His Ala Phe Glu Ala Arg Ile Tyr Ala Glu Asp Pro Ser Asn		
305	310	315
Asn Phe Met Pro Val Ala Gly Pro Leu Val His Leu Ser Thr Pro Arg		
325	330	335
Ala Asp Pro Ser Thr Arg Ile Glu Thr Gly Val Arg Gln Gly Asp Glu		
340	345	350
Val Ser Val His Tyr Asp Pro Met Ile Ala Lys Leu Val Val Trp Ala		
355	360	365
Ala Asp Arg Gln Ala Ala Leu Thr Lys Leu Arg Tyr Ser Leu Arg Gln		
370	375	380
Tyr Asn Ile Val Gly Leu His Thr Asn Ile Asp Phe Leu Leu Asn Leu		
385	390	395
Ser Gly His Pro Glu Phe Glu Ala Gly Asn Val His Thr Asp Phe Ile		
405	410	415
Pro Gln His His Lys Gln Leu Leu Leu Ser Arg Lys Ala Ala Lys		
420	425	430
Glu Ser Leu Cys Gln Ala Ala Leu Gly Leu Ile Leu Lys Glu Lys Ala		
435	440	445
Met Thr Asp Thr Phe Thr Leu Gln Ala His Asp Gln Phe Ser Pro Phe		
450	455	460
Ser Ser Ser Ser Gly Arg Arg Leu Asn Ile Ser Tyr Thr Arg Asn Met		
465	470	475
Thr Leu Lys Asp Gly Lys Asn Ser Phe Arg Leu Leu Gly		
485	490	

<210> 3359

<211> 652

<212> DNA

<213> Homo sapiens

<400> 3359

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gcctatacct actgtagctt ctccacgtat ggaccctaaa ggctactgct gctactacgg
120

ggctagacag ttactgtctc agctctagga tgtgcgttct tccactagaa gctcttctga
180

gggaggtaat taaaaaacag tggaatggaa aaacagtgtc gtagtcatcc tgtaatatgc
240

tccttgtaa caatgtatac attcctgcta ggtgccatat tcattgcttt aagctcaagt
300

cgcatcttac tagtgaagta ttctgccaat gaagaaaaca agtatgatta tcttccaact
 360
 actgtgaatg tgtgtcaga actggtgaag ctagttttct gtgtgcttgt gtcattctgt
 420
 gttataaaga aagatcatca aagtagaaat ttgaaatatg cttcctggaa ggaattctct
 480
 gatttcatga agtgggtccat tcctgccttt ctttatttcc tggataaactt gattgtcttc
 540
 tatgtcctgt cctatcttca accagccatg gctgttatct tctcaaattt tagcattata
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 652

<210> 3360

<211> 149

<212> PRT

<213> Homo sapiens

<400> 3360

Met	Glu	Lys	Gln	Cys	Cys	Ser	His	Pro	Val	Ile	Cys	Ser	Leu	Ser	Thr
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Met	Tyr	Thr	Phe	Leu	Leu	Gly	Ala	Ile	Phe	Ile	Ala	Leu	Ser	Ser	Ser
			20					25					30		
Arg	Ile	Leu	Leu	Val	Lys	Tyr	Ser	Ala	Asn	Glu	Glu	Asn	Lys	Tyr	Asp
			35				40					45			
Tyr	Leu	Pro	Thr	Thr	Val	Asn	Val	Cys	Ser	Glu	Leu	Val	Lys	Leu	Val
			50			55					60				
Phe	Cys	Val	Leu	Val	Ser	Phe	Cys	Val	Ile	Lys	Lys	Asp	His	Gln	Ser
65					70					75				80	
Arg	Asn	Leu	Lys	Tyr	Ala	Ser	Trp	Lys	Glu	Phe	Ser	Asp	Phe	Met	Lys
			85					90						95	
Trp	Ser	Ile	Pro	Ala	Phe	Leu	Tyr	Phe	Leu	Asp	Asn	Leu	Ile	Val	Phe
			100					105					110		
Tyr	Val	Leu	Ser	Tyr	Leu	Gln	Pro	Ala	Met	Ala	Val	Ile	Phe	Ser	Asn
			115			120					125				
Phe	Ser	Ile	Ile	Thr	Thr	Ala	Leu	Leu	Phe	Arg	Ile	Val	Leu	Lys	Arg
			130			135					140				
Arg	Leu	Asn	Trp	Ile											
145															

<210> 3361

<211> 1040

<212> DNA

<213> Homo sapiens

<400> 3361

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 120
 ggagtcgcct gcgcgcgcag cggaggccag tgcgccggcg catagcgagc ccgggtctgt
 180
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 240

gtctttgatt atacatcagc atcaccagct ccctcaccac caatgcgacc atgggagatg
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 360
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 420
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 480
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 540
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 600
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 660
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 720
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 780
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 840
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 900
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 960
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 1020
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 1040

<210> 3362

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3362

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1				5					10					15	
Pro	Ser	Gln	His	Phe	Ser	Gly	Glu	Arg	Cys	Asn	Thr	Pro	Ala	Arg	
		20					25					30			
Asn	Arg	Arg	Ser	Pro	Pro	Val	Arg	Arg	Gln	Arg	Gly	Arg	Arg	Asp	Arg
		35					40					45			
Leu	Ser	Arg	His	Asn	Ser	Ile	Ser	Gln	Asp	Glu	Asn	Tyr	His	His	Leu
	50					55					60				
Pro	Tyr	Ala	Gln	Gln	Gln	Ala	Ile	Glu	Glu	Pro	Arg	Ala	Phe	His	Pro
65					70					75				80	
Pro	Asn	Val	Ser	Pro	Arg	Leu	Leu	His	Pro	Ala	Ala	His	Pro	Pro	Gln
				85					90					95	
Gln	Asn	Ala	Val	Met	Val	Asp	Ile	His	Asp	Gln	Leu	His	Gln	Gly	Thr
		100						105					110		
Val	Pro	Val	Ser	Tyr	Thr	Val	Thr	Val	Ala	Pro	His	Gly	Ile	Pro	
		115					120				125				
Leu	Cys	Thr	Gly	Gln	His	Ile	Pro	Ala	Cys	Ser	Thr	Gln	Gln	Val	Pro
	130					135					140				
Gly	Cys	Ser	Val	Val	Phe	Ser	Gly	Gln	His	Leu	Pro	Val	Cys	Ser	Val

```

145          150          155          160
Pro Pro Pro Met Leu Gln Ala Cys Ser Val Gln His Leu Pro Val Pro
          165          170          175
Tyr Ala Ala Phe Pro Pro Leu Ile Ser Ser Asp Pro Phe Leu Ile His
          180          185          190
Pro Pro His Leu Ser Pro His His Pro Pro His Leu Pro Pro Pro Gly
          195          200          205
Gln Phe Val Pro Phe Gln Thr Gln Gln Ser Arg Ser Pro Leu Gln Arg
          210          215          220
Ile Glu Asn Glu Val Glu Leu Leu Gly Glu His Leu Pro Gly Ala His
225          230          235          240
Pro Gln His Pro His Leu Leu Ile Asn Ile Ser Thr
          245          250

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<210> 3363
 <211> 718
 <212> DNA
 <213> Homo sapiens

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<400> 3363
cagaaggacc ccaggatggc ggtcatcatg cccaggaacg ttggtgatgg ggaatgggtt
60
ggccagcatg atcagggacc ccgtcatgcc catgattttt tgggtggcat tggcgaccga
120
gtagctcagg agtgtctccg gagcccactg gagaagcccc ccaacggcct cctcttcccc
180
cagcaggggg actatcagta cgcccgcaac aacatctaaa cagaccactt ccaatacagc
240
cggcagagct acccaaactc gtacagtttg aaccgctatg atgtgtagag tccaaaggac
300
aggaccagac tgttggtgac tccttccccg gccccacag cagtatcaga aacttctgac
360
aatcagtga tgtacaaccc agccgagggg acggtgcata actctccatc agaagccctg
420
gggttccttg cccccgtga gccgcaggag gatgcgttgc ctgcagtgca gacggccgtg
480
agctctgggc aaacctaaac agagaccagt gtcccatgct ctttcttctt ggagcctgtc
540
atctgagggc cgtgtccctg cggagatctt ggccacgttg tacctttcca tgtggaatta
600
ttccccaagc agtgtagctc agagcacttg tgtctgcatt ccagataaca ttcaggacct
660
gtgtgaaaag ctgggggtcac tgtggctgta gaccatgaac tggcagtggt ggtgtcca
718

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<210> 3364
 <211> 163
 <212> PRT
 <213> Homo sapiens

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<400> 3364
Met Gly His Trp Ser Leu Phe Arg Phe Ala Gln Ser Ser Arg Pro Ser
1          5          10          15
Ala Leu Gln Ala Thr His Pro Pro Ala Ala His Gly Gly Pro Gly Thr

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20 25 30
 Pro Gly Leu Leu Met Glu Ser Tyr Ala Pro Ser Pro Arg Leu Gly Cys
 35 40 45
 Thr Phe Thr Asp Cys Gln Lys Phe Leu Ile Leu Leu Trp Gly Pro Gly
 50 55 60
 Lys Glu Ser Pro Thr Val Trp Ser Cys Pro Leu Asp Ser Thr His His
 65 70 75 80
 Ser Gly Ser Asn Cys Thr Ser Leu Gly Ser Ser Ala Gly Cys Ile Gly
 85 90 95
 Ser Gly Leu Phe Arg Cys Cys Cys Gly Arg Thr Asp Ser Pro Arg Ala
 100 105 110
 Gly Gly Arg Gly Gly Arg Trp Gly Ala Ser Pro Val Gly Ser Gly Asp
 115 120 125
 Thr Pro Glu Leu Leu Gly Arg Gln Cys His Pro Lys Asn His Gly His
 130 135 140
 Asp Gly Val Pro Asp His Ala Gly Gln Pro Ile Pro His His Gln Arg
 145 150 155 160
 Ser Trp Ala

<210> 3365

<211> 2389

<212> DNA

<213> Homo sapiens

<400> 3365

gcaggaagat ggcggcggtta ggcggaggtgt gactggacgc gggactcagc ggccggattt
 60
 tctctccct tctttccct tttcttccc tatttgaaat tggcatcgag ggggctaagt
 120
 tcgggtggca ggcgcggcg caacgcagg gtcacggcga cggcggcggc ggctgacggc
 180
 tggaagggtta ggcttccttc accgctcgtc ctcttcttc gctccgctcg gtgtcaggcg
 240
 cggcggcggc ggcgcggcg gacttcgtcc ctcttctgc tccccccac accggagcgg
 300
 gactcttcg ctgcgccatc ccccgacct tcaccccgag gactgggcgc ctcttcggc
 360
 gcagctgagg gagcgggggc cggctctctg ctcggttgtc gagcctccat gtcggataat
 420
 cagaactgga actcgtcggg ctcgaggag gatccagaga cggagtctgg gccgcctgtg
 480
 gagcgtgcg gggctctcag taagtggaca aactacattc atgggtggca ggatcgttgg
 540
 gtatgtttga aaaataatgc tctgagttac tacaaatctg aagatgaaac agagtatggc
 600
 tgcagaggat ccatctgtct tagcaaggct gtcacacac ctacgattt tgatgaatgt
 660
 cgatttgata ttagtgtaaa tgatagtgtt tggtatcttc gtgctcagga tccagatcat
 720
 agacagcaat ggatagatgc cattgaacag cacaagactg aatctggata tggatctgaa
 780
 tccagcttgc gtcgacatgg ctcaatggtg tccctggtgt ctggagcaag tggctactct
 840

gcaacatcca cctcttcatt caagaaaggc cacagtttac gtgagaagtt ggctgaaatg
900
gaaacattta gagacatctt atgtagacaa gttgacacgc tacagaagta ctttgatgcc
960
tgtgctgatg ctgtctctaa ggatgaactt caaagggata aagtggtaga agatgatgaa
1020
gatgactttc ctacaacgcg ttctgatggg gacttcttgc atagtaccaa cggcaataaa
1080
gaaaagttat ttccacatgt gacaccaaaa ggaattaatg gtatagactt taaaggggaa
1140
gcgataactt ttaaagcaac tactgctgga atccttgcaa cactttctca ttgtattgaa
1200
ctaattggtta aacgtgagga cagctggcag aagagactgg ataaggaaac tgagaagaaa
1260
agaagaacag aggaagcata taaaaatgca atgacagaac ttaagaaaaa atccccactt
1320
ggaggaccag attatgaaga aggccctaac agtctgatta atgaagaaga gttctttgat
1380
gctgttgaag ctgctcttga cagacaagat aaaatagaag aacagtcaca gagtgaaaag
1440
gtgagattac attggcctac atccttgccc tctggagatg ccttttcttc tgtggggaca
1500
catagatttg tccaaaagcc ctatagtgc tcttctcca tgtcttccat tgatctagtc
1560
agtgcctctg atgatgttca cagattcagc tcccagggtg aagagatggg gcagaaccac
1620
atgacttact cattacagga tgtaggcgga gatgccaat ggagttggg tgtagaagaa
1680
ggagaaatga aggtatacag aagagaagta gaagaaaatg ggattgttct ggatccttta
1740
aaagctaccc atgcagttaa aggcgtcaca ggacatgaag tctgcaatta tttctggaat
1800
gttgacgttc gcaatgactg ggaaacaact atagaaaact ttcattgtggg ggaaacatta
1860
gctgataatg caatcatcat ttatcaaaca cacaagaggg tgtggcctgc ttctcagcga
1920
gacgtattat atctttctgt cattcgaaa ataccagcct tgactgaaaa tgaccctgaa
1980
acttgatag tttgtaattt ttctgtggg catgacagt ctcctctaaa caaccgatgt
2040
gtccgtgcca aaataaatgt tgctatgatt tgtcaaacct tggtaagccc accagaggga
2100
aaccaggaaa ttagcaggga caacattcta tgcaagatta catatgtagc taatgtgaac
2160
cctggaggat gggcaccagc ctcatgttta agggcagtgg caaagcgaga gtatcctaaa
2220
tttctaaaac gttttacttc ttacgtccaa gaaaaaactg caggaaagcc tattttgttc
2280
tagtattaac aggtactaga agatatgttt tatctttttt taactttatt tgactaatat
2340
gactgtcaat actaaaattt agttgttgaa agtatttact atgtttttt
2389

<210> 3366

<211> 624

<212> PRT

<213> Homo sapiens

<400> 3366

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Met Ser Asp Asn Gln Asn Trp Asn Ser Ser Gly Ser Glu Glu Asp Pro
 1          5          10          15
Glu Thr Glu Ser Gly Pro Pro Val Glu Arg Cys Gly Val Leu Ser Lys
      20          25          30
Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
      35          40          45
Asn Asn Ala Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
      50          55          60
Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
      65          70          75          80
Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
      85          90          95
Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
      100          105          110
Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
      115          120          125
Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
      130          135          140
Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
      145          150          155          160
Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
      165          170          175
Thr Leu Gln Lys Tyr Phe Asp Ala Cys Ala Asp Ala Val Ser Lys Asp
      180          185          190
Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
      195          200          205
Thr Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys
      210          215          220
Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
      225          230          235          240
Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
      245          250          255
Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser
      260          265          270
Trp Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu
      275          280          285
Glu Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe
      290          295          300
Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
      305          310          315          320
Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
      325          330          335
Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser
      340          345          350
Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
      355          360          365
Gln Lys Pro Tyr Ser Arg Ser Ser Ser Met Ser Ser Ile Asp Leu Val
      370          375          380
Ser Ala Ser Asp Asp Val His Arg Phe Ser Ser Gln Val Glu Glu Met

```

```

385          390          395          400
Val Gln Asn His Met Thr Tyr Ser Leu Gln Asp Val Gly Gly Asp Ala
          405          410          415
Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met Lys Val Tyr Arg Arg
          420          425          430
Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro Leu Lys Ala Thr His
          435          440          445
Ala Val Lys Gly Val Thr Gly His Glu Val Cys Asn Tyr Phe Trp Asn
          450          455          460
Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile Glu Asn Phe His Val
465          470          475          480
Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile Tyr Gln Thr His Lys
          485          490          495
Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu Tyr Leu Ser Val Ile
          500          505          510
Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro Glu Thr Trp Ile Val
          515          520          525
Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro Leu Asn Asn Arg Cys
          530          535          540
Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys Gln Thr Leu Val Ser
545          550          555          560
Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp Asn Ile Leu Cys Lys
          565          570          575
Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly Trp Ala Pro Ala Ser
          580          585          590
Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro Lys Phe Leu Lys Arg
          595          600          605
Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala Gly Lys Pro Ile Leu Phe
610          615          620

```

<210> 3367

<211> 366

<212> DNA

<213> Homo sapiens

<400> 3367

acgcgtgcag gagaggagag gccaggagat agggagggca gtttgtggat tgaaatgacc

60

gagaattacg ccacagaggt gttggaggct ggcatcgtgg catctcagga gcacggaggg

120

tgccttcccc acttcaggcc tcttagtgtc aaggatgtga gaggcaaggg ctgctgggag

180

agtatttttac ggactgaagg aggcgtgccg cctgccctgc cctcctactg gtggaggaag

240

gaggtgctgg gagccccaca actcagggcc ccccgacgcc cagtaaggcc actgtacacc

300

cctcctgacc cagaccataa ccagcctccg attgtgcttt tgaccctggt tccttcaggg

360

accagg

366

<210> 3368

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3368

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Met Thr Glu Asn Tyr Ala Thr Glu Val Leu Glu Ala Gly Ile Val Ala
 1             5             10             15
Ser Gln Glu His Gly Gly Cys Leu Pro His Phe Arg Pro Leu Ser Val
          20             25             30
Lys Asp Val Arg Gly Lys Gly Cys Trp Glu Ser Ile Leu Arg Thr Glu
          35             40             45
Gly Gly Val Pro Pro Ala Leu Pro Ser Tyr Trp Trp Arg Lys Glu Val
          50             55             60
Leu Gly Ala Pro Gln Leu Arg Ala Pro Arg Arg Pro Val Arg Pro Leu
65             70             75             80
Tyr Thr Pro Pro Asp Pro Asp His Asn Gln Pro Pro Ile Val Leu Leu
          85             90             95
Thr Leu Phe Pro Ser Gly Thr Arg
          100

```

<210> 3369

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 3369

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ctgtgtccag ggaaaagctt tcagcagcaa agggaagcca tgaaacaaac catagaagaa
60
gataaggagc agaaaaatca ggaaaactgt ggtgcaaaga agaataaaaa gaagaggaaa
120
aagggtttat ataatgccaa taaaaatgat gattatgaca acgaggagat cttaacctat
180
gaggaaatgt cactttatca tcagccagca aataggaaga gacctatcat cttgattggt
240
ccacagaact gtggccagaa tgaattgcgt cagaggctca tgaacaaaga aaaggaccgc
300
tttgcactctg cagttctca tacaacccgg agtaggcgag accaagaagt agccggtaga
360
gattaccact ttgtttcgcg gcaagcattc gaggcagaca tagcagctgg aaagttcatt
420
gagcatgggtg aatttgagaa gaatttgtat ggaactagca tagattctgt acggcaagtg
480
atcaactctg gcaaaatatg tcttttaagt cttcgtacac agtcattgaa gactctccgg
540
aattcagatt tgaaaccata tattatcttc attgcacccc cttcacaaga aagacttcgg
600
gcattatttg ccaaagaagg caagaatcca aagcctgaag agttgagaga aatcattgag
660
aagacaagag agatggagca gaacaatggc cactactttg atacggcaat tgtgaattcc
720
gatcttgata aagcctatca ggaattgctt aggttaatta acaaacttga tactgaacct
780
cagtgggtac catccacttg gctgagggtg aagaaacatc cattctgtgg catgttggac
840
ttgatctggc aaaaactgcc aataggagga ctgcccgaca ctgcagcaag attgaggata
900

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agatggaagg cagcagtata agctgtagat ctgttcttag atctcttgaa ttagtgagac
 960
 gacagttccc ttaggcagtt tgtgcatggc atcctttatt ctctatacat ggcttttagcg
 1020
 gttcttgccct cattttggga ttctaaatgg aagctttcaa cagagcattc cattttgtcc
 1080
 tgttaaaacc ttttgtttcc acctaaaccc tttctgctta gttgtatctc tgtgaaaaac
 1140
 ttgtatacac aagcgtccat gtctcacaca aatattgatg tgattattct taagtgttaa
 1200
 atcattaaca cttaaagac ttcatggga atattgagca gagggactgt gcttctatgc
 1260
 actgggcaag gcagtatttg cttaggaaac taatttagtc atcagagata ctttcctaaa
 1320
 aaggaaaaat aaaaaacaaa atgggtgccac tttgggttga agctactttg ttaggcttga
 1380
 attcatttat atgtcttttg attct
 1405

<210> 3370

<211> 269

<212> PRT

<213> Homo sapiens

<400> 3370

Leu Val Pro Gly Lys Ser Phe Gln Gln Gln Arg Glu Ala Met Lys Gln
 1 5 10 15
 Thr Ile Glu Glu Asp Lys Glu Gln Lys Asn Gln Glu Asn Cys Gly Ala
 20 25 30
 Lys Lys Asn Lys Lys Lys Arg Lys Lys Val Leu Tyr Asn Ala Asn Lys
 35 40 45
 Asn Asp Asp Tyr Asp Asn Glu Glu Ile Leu Thr Tyr Glu Glu Met Ser
 50 55 60
 Leu Tyr His Gln Pro Ala Asn Arg Lys Arg Pro Ile Ile Leu Ile Gly
 65 70 75 80
 Pro Gln Asn Cys Gly Gln Asn Glu Leu Arg Gln Arg Leu Met Asn Lys
 85 90 95
 Glu Lys Asp Arg Phe Ala Ser Ala Val Pro His Thr Thr Arg Ser Arg
 100 105 110
 Arg Asp Gln Glu Val Ala Gly Arg Asp Tyr His Phe Val Ser Arg Gln
 115 120 125
 Ala Phe Glu Ala Asp Ile Ala Ala Gly Lys Phe Ile Glu His Gly Glu
 130 135 140
 Phe Glu Lys Asn Leu Tyr Gly Thr Ser Ile Asp Ser Val Arg Gln Val
 145 150 155 160
 Ile Asn Ser Gly Lys Ile Cys Leu Leu Ser Leu Arg Thr Gln Ser Leu
 165 170 175
 Lys Thr Leu Arg Asn Ser Asp Leu Lys Pro Tyr Ile Ile Phe Ile Ala
 180 185 190
 Pro Pro Ser Gln Glu Arg Leu Arg Ala Leu Leu Ala Lys Glu Gly Lys
 195 200 205
 Asn Pro Lys Pro Glu Glu Leu Arg Glu Ile Ile Glu Lys Thr Arg Glu
 210 215 220
 Met Glu Gln Asn Asn Gly His Tyr Phe Asp Thr Ala Ile Val Asn Ser

```

225          230          235          240
Asp Leu Asp Lys Ala Tyr Gln Glu Leu Leu Arg Leu Ile Asn Lys Leu
          245          250          255
Asp Thr Glu Pro Gln Trp Val Pro Ser Thr Trp Leu Arg
          260          265

```

```
<210> 3371
<211> 790
<212> DNA
<213> Homo sapiens
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<400> 3371
nnacgcgtag ccacaagacc ggggtccggtt ctgggtgccc ttcccgcagg tgacgctgca
60
gacagaccag agactccagt caccctcgcc atctgtggaa tcatattctg gctgatcttt
120
ggtttcaaaa gtccgggtggc ctggggctgt atgggtccac cccctggggg ggttgaggaa
180
gttgctgtcg tctgaggtac tgccgtacgt gtagtcctgg tccccgcttt tgccctggcc
240
aaagaagcac caagggagca tctggaccac caggctgcac accaaccctt cccagaccg
300
cgattccgac aagagacggg gcacccctca ttgcaaagag atttccccag atcctttctc
360
cttgatctac caaactttcc agatctttcc aaagctgata tcaatgggca gaatccaaat
420
atccaggtca ccatagaggt ggtcgacggg cctgactctg aagcagataa agatcagcat
480
ccggagaata agcccagctg gtcagtccca tccccgact ggcgggcctg gtggcagagg
540
tccctgtcct tggccagggc aaacagcggg gaccaggact acaagtacga cagtacctca
600
gacgacagca acttctctca cccccccagg ggggtgggacc atacagcccc aggccaccgg
660
acttttgaaa ccaaagatca gccagaatat gattccacag atggcgaggg tgactggagt
720
ctctggtctg tctgcagcgt cacctgcggg aacggcaacc agaaacggac ccggtcttgt
780
ggctacgcgt
790

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<210> 3372
<211> 198
<212> PRT
<213> Homo sapiens
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<400> 3372
Gly Thr Ala Val Arg Val Val Leu Val Pro Ala Phe Ala Leu Ala Lys
1 5 10 15
Glu Ala Pro Arg Glu His Leu Asp His Gln Ala Ala His Gln Pro Phe
20 25 30
Pro Arg Pro Arg Phe Arg Gln Glu Thr Gly His Pro Ser Leu Gln Arg
35 40 45
Asp Phe Pro Arg Ser Phe Leu Leu Asp Leu Pro Asn Phe Pro Asp Leu

50 55 60
 Ser Lys Ala Asp Ile Asn Gly Gln Asn Pro Asn Ile Gln Val Thr Ile
 65 70 75 80
 Glu Val Val Asp Gly Pro Asp Ser Glu Ala Asp Lys Asp Gln His Pro
 85 90 95
 Glu Asn Lys Pro Ser Trp Ser Val Pro Ser Pro Asp Trp Arg Ala Trp
 100 105 110
 Trp Gln Arg Ser Leu Ser Leu Ala Arg Ala Asn Ser Gly Asp Gln Asp
 115 120 125
 Tyr Lys Tyr Asp Ser Thr Ser Asp Asp Ser Asn Phe Leu Asn Pro Pro
 130 135 140
 Arg Gly Trp Asp His Thr Ala Pro Gly His Arg Thr Phe Glu Thr Lys
 145 150 155 160
 Asp Gln Pro Glu Tyr Asp Ser Thr Asp Gly Glu Gly Asp Trp Ser Leu
 165 170 175
 Trp Ser Val Cys Ser Val Thr Cys Gly Asn Gly Asn Gln Lys Arg Thr
 180 185 190
 Arg Ser Cys Gly Tyr Ala
 195

<210> 3373

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3373

tgtacatggt ttctctgggc tgacaggggc cctgcccctg gggcactgag ccctccctgt
 60
 gggtcctcga acagaagcca gggctctgtgc ggcacccacc agctgctggg ccatggcgga
 120
 gtgttctggt gcgggccagc gcctgaccgg tgcggggcggc ctcaggagag gagagcttgc
 180
 tcagtgcgtc acgtagtcag ggctcaggct ggggcccggc tccagagcct ggtcacattc
 240
 ccaagcttca ttctcttcac ctgtgaattg caggcttccc tgggtgtgccc tgcacatgag
 300
 ggaagacaca cctgaagcac tgggtccctc catggccttg ggccgcagga accgtgggag
 360
 cagcagcttg ggaaggacat gtcggaggcc ggcgcctgtg cgggcagaag ctgtgtcctc
 420
 cagcccttcc accaccagca tgttctcatt tccaggtttc tctgtttaaa aaacaaaagt
 480
 agcgcacatcgg tggctcttcac gacgtacacc cagaagcacc cgtccatcga ggacgggcct
 540
 ccgtttgtgg agccgctgct taacttcac tggttcctgc tgcctggctgt ggacgggtgc
 600
 gtcttgggat cctgcagggg gagggggctg tgaatgtgcg ggttgtgtgt agacgtggtg
 660
 tggatagctg tgtgggtgtg tgtgcaagt tagccatggt gtgggtagcc gtgtgggtat
 720
 atgcat
 726

<210> 3374

<211> 84
 <212> PRT
 <213> Homo sapiens

<400> 3374
 Met Ser Glu Ala Gly Ala Cys Ala Gly Arg Ser Cys Val Leu Gln Pro
 1 5 10 15
 Phe His His Gln His Val Leu Ile Ser Arg Phe Leu Cys Leu Lys Asn
 20 25 30
 Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro
 35 40 45
 Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile
 50 55 60
 Trp Phe Leu Leu Leu Ala Val Asp Gly Cys Val Leu Gly Ser Cys Arg
 65 70 75 80
 Gly Arg Gly Leu

<210> 3375
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 3375
 acgcgtgcat acgtgatctc atgtttgcac acatgtgtcc atgcagatgc atgctctcac
 60
 gcacatgtgc ccacacactc agcactcaca ccccgctcctg caggctcagc cccactcctg
 120
 agccacctgc ctgggctttg ggggcccagc cggcatgggg agccccaggc tccagctggc
 180
 ctcgcttggc tctgaaatct aggccaggat gcagagcccg cagtgcggcc agtggagccc
 240
 ctgggtactgt ggcgagcccc cacctggcag ccccttttcc tgtcaaagcc cctcccagcg
 300
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 360
 cttgccagc atccccggcc tgcattcac cag
 393

<210> 3376
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 3376
 Met Phe Ala His Met Cys Pro Cys Arg Cys Met Leu Ser Arg Thr Cys
 1 5 10 15
 Ala His Thr Leu Ser Thr His Thr Pro Ser Cys Arg Leu Ser Pro Thr
 20 25 30
 Pro Glu Pro Pro Ala Trp Ala Leu Gly Ala Gln Pro Ala Trp Gly Ala
 35 40 45
 Pro Gly Ser Ser Trp Pro Arg Leu Ala Leu Lys Ser Arg Pro Gly Cys
 50 55 60
 Arg Ala Arg Ser Ala Ala Ser Gly Ala Pro Gly Thr Val Arg Ser Pro

65 70 75 80
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<210> 3378

<211> 970

<212> PRT

<213> Homo sapiens

<400> 3378

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Thr	Gln	Ile	Gly	Gln	Tyr	Gly	Asn	Gly	Leu	Lys	Ser	Gly	Ser	Met	Arg
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Ile	Gly	Lys	Asp	Phe	Ile	Leu	Phe	Thr	Lys	Lys	Glu	Asp	Thr	Met	Thr
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Cys	Leu	Phe	Leu	Ser	Arg	Thr	Phe	His	Glu	Glu	Glu	Gly	Ile	Asp	Glu
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Val	Ile	Val	Pro	Leu	Pro	Thr	Trp	Asn	Ala	Arg	Thr	Arg	Glu	Pro	Val
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Tyr	Ser	Pro	Phe	Arg	Thr	Glu	Glu	Glu	Val	Met	Thr	Gln	Phe	Met	Lys
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Leu Tyr Lys Pro Arg Met Tyr Lys Tyr Thr Ser Ser Arg Phe Lys Thr
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Glu Glu Lys Ala Arg Glu Ala Glu Ser Lys Ala Arg Thr Leu Glu Val
245      250      255
Arg Leu Gly Gly Asp Leu Thr Arg Asp Ser Arg Val Met Leu Arg Gln
260      265      270
Val Gln Asn Arg Ala Ile Thr Leu Arg Arg Glu Ala Asp Val Lys Lys
275      280      285
Arg Ile Lys Glu Ala Lys Gln Arg Ala Leu Lys Glu Pro Lys Glu Leu
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Asn Phe Val Phe Gly Val Asn Ile Glu His Arg Asp Leu Asp Gly Met
305      310      315      320
Phe Ile Tyr Asn Cys Ser Arg Leu Ile Lys Met Tyr Glu Lys Val Gly
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Pro Gln Leu Glu Gly Gly Met Ala Cys Gly Gly Val Val Gly Val Val
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Asp Val Pro Tyr Leu Val Leu Glu Pro Thr His Asn Lys Gln Asp Phe
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Ala Asp Ala Lys Glu Tyr Arg His Leu Leu Arg Ala Met Gly Glu His
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Leu Ala Gln Tyr Trp Lys Asp Ile Ala Ile Ala Gln Arg Gly Ile Ile
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Pro Ser Ser Glu Leu Arg Tyr Lys Arg Arg Arg Ala Met Glu Ile Pro
420      425      430
Thr Thr Ile Gln Cys Asp Leu Cys Leu Lys Trp Arg Thr Leu Pro Phe
435      440      445
Gln Leu Ser Ser Val Glu Lys Asp Tyr Pro Asp Thr Trp Val Cys Ser
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465      470      475      480
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Lys Lys Leu Pro Leu Glu Val Thr Thr Arg Pro Ser Thr Glu Glu Pro
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545      550      555      560
Arg Asn Ala Pro Ser Arg Pro Pro Ser Leu Pro Thr Pro Arg Pro Ala
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Val Val Lys Lys Thr Glu Ser Pro Ile Lys Leu Ser Pro Ala Thr Pro		
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Lys Glu Glu Lys Lys Asp Ser Asn Glu Leu Ser Asp Ser Ala Gly Gly		
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Glu Asp Ser Ala Asp Leu Lys Arg Ala Gln Lys Asp Lys Gly Leu His		720
725	730	735
Val Glu Val Arg Val Asn Arg Glu Trp Tyr Thr Gly Arg Val Thr Ala		
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Val Glu Val Gly Lys His Val Val Arg Trp Lys Val Lys Phe Asp Tyr		
755	760	765
Val Pro Thr Asp Thr Thr Pro Arg Asp Arg Trp Val Glu Lys Gly Ser		
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Gln Ala Ile Ala Val Ala Glu Pro Ser Thr Ser Glu Cys Leu Arg Ile		
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Glu Pro Asp Thr Thr Ala Leu Ser Thr Asn His Glu Thr Ile Asp Leu		
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Leu Val Gln Ile Leu Arg Asn Cys Leu Arg Tyr Phe Leu Pro Pro Ser		
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Phe Pro Ile Ser Lys Lys Gln Leu Ser Ala Met Asn Ser Asp Glu Leu		
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Ile Ser Phe Pro Leu Lys Glu Tyr Phe Lys Gln Tyr Glu Val Gly Leu		
885	890	895
Gln Asn Leu Cys Asn Ser Tyr Gln Ser Arg Ala Asp Ser Arg Ala Lys		
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Glu Glu Lys Leu Gln Lys Leu Arg Thr Asn Ile Val Ala Leu Leu Gln		
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<210> 3379

<211> 898

<212> DNA

<213> Homo sapiens

<400> 3379

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<212> PRT

<213> Homo sapiens

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Thr	Asn	Gly	Asn	Arg	Pro	Thr	Ile	Pro	Gln	Pro	Trp	Glu	Leu	Arg	Val
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Ser	Glu	Asp	Ala	Leu	Leu	Gly	Ser	Glu	Ile	Ala	Gln	Val	Thr	Gly	Asn
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Asp	Val	Asp	Ser	Gly	Pro	Val	Leu	Trp	Tyr	Val	Leu	Ser	Pro	Ser	Gly
65				70					75					80	
Pro	Gln	Asp	Pro	Phe	Ser	Val	Gly	Arg	Tyr	Gly	Gly	Arg	Val	Ser	Leu
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Thr	Gly	Pro	Leu	Asp	Phe	Glu	Gln	Cys	Asp	Arg	Tyr	Gln	Leu	Gln	Leu
		100					105					110			
Leu	Ala	His	Asp	Gly	Pro	His	Glu	Gly	Arg	Ala	Xaa	Leu	Thr	Val	Leu
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Val	Glu	Asp	Val	Asn	Asp	Asn	Ala	Pro	Ala	Phe	Ser	Gln	Ser	Leu	Tyr

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<211> 279

<212> PRT

<213> Homo sapiens

<400> 3382

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Glu	Glu	Glu	Gln	Glu	Glu	Ser	Glu	Glu	Ala	Ala	Cys	Gly	Ser	Lys	Lys
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Arg	Val	Val	Pro	Gly	Ile	Val	Tyr	Leu	Gly	His	Ile	Pro	Pro	Arg	Phe
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Arg	Pro	Leu	His	Val	Arg	Asn	Leu	Leu	Ser	Ala	Tyr	Gly	Glu	Val	Gly
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Arg	Val	Phe	Phe	Gln	Ala	Glu	Asp	Arg	Phe	Val	Arg	Arg	Lys	Lys	Lys
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Ala	Ala	Ala	Ala	Ala	Gly	Gly	Lys	Lys	Arg	Ser	Tyr	Thr	Lys	Asp	Tyr
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Thr	Glu	Gly	Trp	Val	Glu	Phe	Arg	Asp	Lys	Arg	Ile	Ala	Lys	Arg	Val
	115						120					125			
Ala	Ala	Ser	Leu	His	Asn	Thr	Pro	Met	Gly	Ala	Arg	Arg	Arg	Ser	Pro
	130					135					140				
Phe	Arg	Tyr	Asp	Leu	Trp	Asn	Leu	Lys	Tyr	Leu	His	Arg	Phe	Thr	Trp
145				150					155					160	
Ser	His	Leu	Ser	Glu	His	Leu	Ala	Phe	Glu	Arg	Gln	Val	Arg	Arg	Gln
				165					170					175	
Arg	Leu	Arg	Ala	Glu	Val	Ala	Gln	Ala	Lys	Arg	Glu	Thr	Asp	Phe	Tyr
		180						185					190		
Leu	Gln	Ser	Val	Glu	Arg	Gly	Gln	Arg	Phe	Leu	Ala	Ala	Asp	Gly	Asp
	195						200					205			
Pro	Ala	Arg	Pro	Asp	Gly	Ser	Trp	Thr	Phe	Ala	Gln	Arg	Pro	Thr	Glu

```

      210              215              220
Gln Glu Leu Arg Ala Arg Lys Ala Ala Arg Pro Gly Gly Arg Glu Arg
225              230              235              240
Ala Arg Leu Ala Thr Ala Gln Asp Lys Ala Arg Ser Asn Lys Gly Leu
      245              250              255
Leu Ala Arg Ile Phe Gly Ala Pro Pro Pro Ser Glu Ser Met Glu Gly
      260              265              270
Pro Ser Leu Val Arg Asp Ser
      275

```

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<210> 3383
<211> 309
<212> DNA
<213> Homo sapiens

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<400> 3383
ttttcttttc ctctgactgt agaacatgct tgctcatcat ggtagcaggg aaaaatgtca
60
gtggttgett cacaacaaatt ttgtagctgg agtgagtatt gttgttattt gtgttatagg
120
aaatgctcac ttcttaacct cttttgtcct ggagcataga attactgcaa atgctcaccc
180
ctgggagctg tcctgcccc gatctccac acaaacactc cagcatgaaa gagcgagact
240
caatctcaaa aaaaaaaagt ttcgggcacc tgaacaggaa ctggtttcca tcatcaactc
300
agaaagccc
309

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<210> 3384
<211> 94
<212> PRT
<213> Homo sapiens

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<400> 3384
Met Leu Ala His His Gly Ser Arg Glu Lys Cys Gln Cys Cys Leu His
1              5              10              15
Thr Asn Phe Val Ala Gly Val Ser Ile Val Val Ile Cys Val Ile Gly
      20              25              30
Asn Ala His Phe Leu Thr Ser Phe Val Leu Glu His Arg Ile Thr Ala
      35              40              45
Asn Ala His Pro Trp Glu Leu Ser Cys Pro Arg Ser Pro Thr Gln Thr
      50              55              60
Leu Gln His Glu Arg Ala Arg Leu Asn Leu Lys Lys Lys Lys Phe Arg
65              70              75              80
Ala Pro Glu Gln Glu Leu Val Ser Ile Ile Asn Ser Glu Ser
      85              90

```

```

<210> 3385
<211> 720
<212> DNA
<213> Homo sapiens

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```

<400> 3385

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 60
 gtaggggtga gccggcttgg ccagagggag gaggggtctat gctgaggtct actgatggta
 120
 gtgaaaacag tgacggtgcg ggggtgggga gcaactgcgt ccacttcttc agccccccac
 180
 tatcctggaa gcttcagggt gggcccagg cagcctccag cttcagcgac caccctgtt
 240
 cctcttgcca gggtctttgt gaacttcccc tcggccaagc agtacttcag ccagttcaag
 300
 cacatggagg atcccctgga gatggagcgg agccccagc tcggaagca cgcctgccga
 360
 gtcattgggg ccctcaacac tgtcgtggag aacctgcatg accccgacaa ggtgtcctct
 420
 gtgctcgccc ttgtggggaa agcccacgcc ctcaagcaca aggtggaacc ggtgtacttc
 480
 aagatcctct ctggggtcat tctggagggt gtcgccgagg aatttgccag tgacttccca
 540
 cctgagacgc agagagcctg ggccaagctg cgtggcctca tctacagcca cgtgaccgct
 600
 gcctacaagg aagtgggctg ggtgcagcag gtccccaacg ccaccacccc accggccaca
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 720

<210> 3386

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3386

Met	Val	Val	Lys	Thr	Val	Thr	Val	Arg	Gly	Trp	Gly	Ala	Leu	Arg	Ser
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Thr	Ser	Ser	Ala	Pro	His	Tyr	Pro	Gly	Ser	Phe	Arg	Val	Gly	Pro	Arg
			20					25					30		
Gln	Pro	Pro	Ala	Ser	Ala	Thr	Thr	Pro	Val	Pro	Leu	Ala	Arg	Phe	Phe
			35				40					45			
Val	Asn	Phe	Pro	Ser	Ala	Lys	Gln	Tyr	Phe	Ser	Gln	Phe	Lys	His	Met
	50					55					60				
Glu	Asp	Pro	Leu	Glu	Met	Glu	Arg	Ser	Pro	Gln	Leu	Arg	Lys	His	Ala
65					70					75				80	
Cys	Arg	Val	Met	Gly	Ala	Leu	Asn	Thr	Val	Val	Glu	Asn	Leu	His	Asp
				85					90					95	
Pro	Asp	Lys	Val	Ser	Ser	Val	Leu	Ala	Leu	Val	Gly	Lys	Ala	His	Ala
			100					105					110		
Leu	Lys	His	Lys	Val	Glu	Pro	Val	Tyr	Phe	Lys	Ile	Leu	Ser	Gly	Val
		115					120					125			
Ile	Leu	Glu	Val	Val	Ala	Glu	Glu	Phe	Ala	Ser	Asp	Phe	Pro	Pro	Glu
	130					135					140				
Thr	Gln	Arg	Ala	Trp	Ala	Lys	Leu	Arg	Gly	Leu	Ile	Tyr	Ser	His	Val
145					150					155				160	
Thr	Ala	Ala	Tyr	Lys	Glu	Val	Gly	Trp	Val	Gln	Gln	Val	Pro	Asn	Ala
				165					170					175	
Thr	Thr	Pro	Pro	Ala	Thr	Leu	Pro	Ser	Ser	Gly	Pro				

180

185

<210> 3387

<211> 3299

<212> DNA

<213> Homo sapiens

<400> 3387

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120
ggaagaggcc tcttattagg gctctggtgg cggcggcgcc ggacccttgg ggtctggacg
180
caacggcgcc gggagcatga acgcccctcc agccttcgag tcgttcttgc tcttcgaggg
240
cgagaagaag taagtgcgc cggctgcggc gggccgagga tcaccattaa caaggacacc
300
aaggtaccca atgcctgttt attcaccatc aacaaagaag accacacact gggaaacatc
360
attaaatcac aactcctaaa agaccgcga gtgctatttg ctggctacaa agtccccac
420
cccttgagc acaagatcat catccgagtg cagaccacgc cggactacag cccccaggaa
480
gcctttacca acgcatcac cgacctcctc agtgagctgt ccctgctgga ggagcgcttt
540
cgggtggcca taaaagacaa gcaggaagga attgagtagg ggccagaggg ggctctgctc
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660
gagcggccgg tcccagccat ggccgcctt gtggccacc ctcacctga caccgacgtg
720
ttggccacc ctcacctga caccgacgtg tcctgtacat agattagggt ttatatctct
780
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1020
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1080
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1140
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1200
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1260
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1380

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1440
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1560
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1620
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1740
cccagcagca gcagccgccc tcgcagccgg ccagcaggcg gccgtccggg caggaggcga
1800
cagggcagag gcgcaggggg atagaggttg tgtccagtgt gagcagctgg ctggcctgga
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1920
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1980
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2040
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2160
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2460
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2760
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2820
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3000

cctgcagctg cgtcaggcgg cacaggagtt tgggggtccag gtgctcggaa agcagctcca
 3060
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 3120
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 3180
 gtcggccacc ccggcggtgtg gcgtcgccct gcgtctcctg gagccccgca ctggcgctccg
 3240
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 3299

<210> 3388

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3388

Ser	Gly	Arg	Gly	Leu	Leu	Leu	Gly	Leu	Trp	Trp	Arg	Arg	Arg	Arg	Thr
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Leu	Gly	Val	Trp	Thr	Gln	Arg	Arg	Arg	Glu	His	Glu	Arg	Pro	Ser	Ser
		20						25					30		
Leu	Arg	Val	Val	Leu	Ala	Leu	Arg	Gly	Arg	Glu	Glu	Val	Ser	Asp	Ala
		35					40					45			
Gly	Cys	Gly	Gly	Pro	Arg	Ile	Thr	Ile	Asn	Lys	Asp	Thr	Lys	Val	Pro
50						55					60				
Asn	Ala	Cys	Leu	Phe	Thr	Ile	Asn	Lys	Glu	Asp	His	Thr	Leu	Gly	Asn
65					70					75				80	
Ile	Ile	Lys	Ser	Gln	Leu	Leu	Lys	Asp	Pro	Gln	Val	Leu	Phe	Ala	Gly
				85					90					95	
Tyr	Lys	Val	Pro	His	Pro	Leu	Glu	His	Lys	Ile	Ile	Ile	Arg	Val	Gln
			100					105					110		
Thr	Thr	Pro	Asp	Tyr	Ser	Pro	Gln	Glu	Ala	Phe	Thr	Asn	Ala	Ile	Thr
		115					120					125			
Asp	Leu	Ile	Ser	Glu	Leu	Ser	Leu	Leu	Glu	Glu	Arg	Phe	Arg	Val	Ala
		130				135					140				
Ile	Lys	Asp	Lys	Gln	Glu	Gly	Ile	Glu							
145						150									

<210> 3389

<211> 308

<212> DNA

<213> Homo sapiens

<400> 3389

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 aacaaaagta gcgcacgggt ggtcttcacg acgtacaccc agaagcaccc gtccatcgag
 120
 gacgggcctc cgtttTgtgga gccgctgett aacttcatct ggttctctgct gctggctgtg
 180
 gacggggaac cttctgacca gcctcatggg ctctcagag caggaggatg gggaggagag
 240
 cccagcgac ggcagcccca tcgagctgga ctgaactggc caggccacgt ggagacacca
 300

cggtcgac
308

<210> 3390
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3390
Xaa Val Ser Lys Pro Phe His His Gln His Val Leu Ile Ser Arg Phe
1 5 10 15
Leu Cys Leu Lys Asn Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr
20 25 30
Thr Gln Lys His Pro Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro
35 40 45
Leu Leu Asn Phe Ile Trp Phe Leu Leu Leu Ala Val Asp Gly Glu Pro
50 55 60
Ser Asp Gln Pro His Gly Leu Leu Arg Ala Gly Gly Trp Gly Gly Glu
65 70 75 80
Pro Gln Arg Arg Gln Pro His Arg Ala Gly Leu Asn Trp Pro Gly His
85 90 95
Val Glu Thr Pro Arg Ser
100

<210> 3391
<211> 1295
<212> DNA
<213> Homo sapiens

<400> 3391
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gaagccctaa gtgacagttc agagcgtctt ttctcctttg gcgtcatcgc agatgttcaa
120
tttgcagact tagaagatgg ctttaatttc caaggaacca ggcggcgata ctacagacat
180
agtcttcttc acttacaggg tgccattgaa gactggaata atgaaagcag catgccctgt
240
tgtgtccttc agcttgagga tatcatcgat ggatataatg cacagtataa tgcattccaaa
300
aagtcacctag aacttggtat ggacatgttc aagaggctta aagttccagt tcatcataca
360
tggggaaacc atgaattcta taacttcagt agagagtatt taacacactc taaacttaac
420
actaagtttc tagaagatca gattgtacat catcctgaga ccatgccttc agaagattat
480
tatgcttate attttgtacc attccctaaa ttccgggttca ttttacttga tgcattatgac
540
ttgagtgtct tgggcgtgga tcagtcttct ccaaataacg agcagtgtat gaagatattg
600
agggagcaca atccaaatac ggaactgaat agtcctcaag gactttctga gccccagttt
660
gtccagttta atggaggatt cagccaagaa cagctaaact ggttgaatga agtgctaaca
720

ttctctgaca caaaccaaga aaaggtggtg attgtgagcc atcttcccat ttacccggac
 780
 gcctctgaca atgtgtgcct ggccctggaac tacagagatg ccctggcagt catttggtct
 840
 catgagtgtg tgggtgtgtt ctttgctggt cacacccatg atgggtggcta ctctgaggat
 900
 ccttttggtg tataccacgt caacctagaa ggagttattg aaacagctcc agacagccaa
 960
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 ccagatagaa ttatgaatta caagaaagaa agagccttcc attgttagtc taatttattt
 1080
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 1140
 tgtctcattg ttttagtattc agcttgcata acaaaatgta tttatagttt cagtgtgtga
 1200
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 1260
 aaaccagga ggaaactgag gcaggggtgt atagt
 1295

<210> 3392

<211> 355

<212> PRT

<213> Homo sapiens

<400> 3392

Ile	Val	Phe	Leu	Leu	Tyr	Leu	Glu	Thr	Cys	Leu	Glu	Val	Met	Asp	Asp
1			5						10					15	
Lys	Pro	Asn	Pro	Glu	Ala	Leu	Ser	Asp	Ser	Ser	Glu	Arg	Leu	Phe	Ser
			20					25					30		
Phe	Gly	Val	Ile	Ala	Asp	Val	Gln	Phe	Ala	Asp	Leu	Glu	Asp	Gly	Phe
	35					40					45				
Asn	Phe	Gln	Gly	Thr	Arg	Arg	Arg	Tyr	Tyr	Arg	His	Ser	Leu	Leu	His
	50				55						60				
Leu	Gln	Gly	Ala	Ile	Glu	Asp	Trp	Asn	Asn	Glu	Ser	Ser	Met	Pro	Cys
65					70					75				80	
Cys	Val	Leu	Gln	Leu	Gly	Asp	Ile	Ile	Asp	Gly	Tyr	Asn	Ala	Gln	Tyr
			85						90					95	
Asn	Ala	Ser	Lys	Lys	Ser	Leu	Glu	Leu	Val	Met	Asp	Met	Phe	Lys	Arg
		100						105					110		
Leu	Lys	Val	Pro	Val	His	His	Thr	Trp	Gly	Asn	His	Glu	Phe	Tyr	Asn
	115						120					125			
Phe	Ser	Arg	Glu	Tyr	Leu	Thr	His	Ser	Lys	Leu	Asn	Thr	Lys	Phe	Leu
	130					135					140				
Glu	Asp	Gln	Ile	Val	His	His	Pro	Glu	Thr	Met	Pro	Ser	Glu	Asp	Tyr
145					150					155				160	
Tyr	Ala	Tyr	His	Phe	Val	Pro	Phe	Pro	Lys	Phe	Arg	Phe	Ile	Leu	Leu
			165						170					175	
Asp	Ala	Tyr	Asp	Leu	Ser	Val	Leu	Gly	Val	Asp	Gln	Ser	Ser	Pro	Lys
		180						185					190		
Tyr	Glu	Gln	Cys	Met	Lys	Ile	Leu	Arg	Glu	His	Asn	Pro	Asn	Thr	Glu
	195						200					205			
Leu	Asn	Ser	Pro	Gln	Gly	Leu	Ser	Glu	Pro	Gln	Phe	Val	Gln	Phe	Asn

```

      210              215              220
Gly Gly Phe Ser Gln Glu Gln Leu Asn Trp Leu Asn Glu Val Leu Thr
225              230              235              240
Phe Ser Asp Thr Asn Gln Glu Lys Val Val Ile Val Ser His Leu Pro
      245              250              255
Ile Tyr Pro Asp Ala Ser Asp Asn Val Cys Leu Ala Trp Asn Tyr Arg
      260              265              270
Asp Ala Leu Ala Val Ile Trp Ser His Glu Cys Val Val Cys Phe Phe
      275              280              285
Ala Gly His Thr His Asp Gly Gly Tyr Ser Glu Asp Pro Phe Gly Val
      290              295              300
Tyr His Val Asn Leu Glu Gly Val Ile Glu Thr Ala Pro Asp Ser Gln
305              310              315              320
Ala Phe Gly Thr Val His Val Tyr Pro Asp Lys Met Met Leu Lys Gly
      325              330              335
Arg Gly Arg Val Pro Asp Arg Ile Met Asn Tyr Lys Lys Glu Arg Ala
      340              345              350
Phe His Cys
      355

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<210> 3393

<211> 510

<212> DNA

<213> Homo sapiens

<400> 3393

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120
agtccggggcg ggtcaaaactt cgagtacttg aaacgggagc actcgctgtc gaagccctac
180
cagggtgtgg gcacaggcag ttcctcactg tggaatctga tgggcaatng catggtgatg
240
accagatata tccgccttac cccagatatg caaagtaaac aggggtgcctt gtggaaccgg
300
gtgccatgtt tcctgagaga ctgggagttg cagggtgcact tcaaaatcca tggacaagga
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420
gggcctgtgt ttggaacat ggacaaattt gtggggctgg gagtatttgt agacacctac
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510

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<210> 3394

<211> 170

<212> PRT

<213> Homo sapiens

<400> 3394

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Xaa Arg Leu Trp Asp Pro Leu Gly Arg Gly Ser Ser Gly Gly Asp Val
  1              5              10              15
Cys Arg Leu Gly Met Gly Pro Gly Xaa Val Thr Pro Ser Ser Phe Val

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<400> 3395
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120
gcggtgcggtg ttgctgcgag tgggacgcgc actggtcggg gccggctcag gagccgggaa
180
aaatctttaa gaatggagtc taaaccttca aggattccaa gaagaatttc tgttcaacct
240
tccagctcct taagtgctag gatgatgtct ggaagcagag gaagtagttt aaatgatacc
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cgctcaagat cgcagaacca gcaacgggat catgattcaa aaagacctaa actttcctgt
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600
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660
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780
aatacatcat ccacaaacca ccaattg
807

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<210> 3396
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 3396
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 20 25 30
 Leu Asn Asp Thr Tyr His Ser Arg Asp Ser Ser Phe Arg Leu Asp Ser
 35 40 45
 Glu Tyr Gln Ser Thr Ser Ala Ser Ala Ser Ala Ser Pro Phe Gln Ser
 50 55 60
 Ala Trp Tyr Ser Glu Ser Glu Ile Thr Gln Gly Ala Arg Ser Arg Ser
 65 70 75 80
 Gln Asn Gln Gln Arg Asp His Asp Ser Lys Arg Pro Lys Leu Ser Cys
 85 90 95
 Thr Asn Cys Thr Thr Ser Ala Gly Arg Asn Val Gly Asn Gly Leu Asn
 100 105 110
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 Ser His Arg Ser Gly Asp Phe Thr Thr Ser Ser Tyr Val Gln Asp Arg
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 <211> 492
 <212> DNA
 <213> Homo sapiens

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<211> 1069

<212> PRT

<213> Homo sapiens

<400> 3400

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Cys	Asp	Val	Leu	Leu	Ile	Val	Gly	Asp	Gln	Lys	Phe	Arg	Ala	His	Lys
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Asn	Val	Leu	Ala	Ala	Ser	Ser	Glu	Tyr	Phe	Gln	Ser	Leu	Phe	Thr	Asn
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Lys	Glu	Asn	Glu	Ser	Gln	Thr	Val	Phe	Gln	Leu	Asp	Phe	Cys	Glu	Pro
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Asp	Ala	Phe	Asp	Asn	Val	Leu	Asn	Tyr	Ile	Tyr	Ser	Ser	Ser	Leu	Phe
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Val	Glu	Lys	Ser	Ser	Leu	Ala	Ala	Val	Gln	Glu	Leu	Gly	Tyr	Ser	Leu
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Gly	Ile	Ser	Phe	Leu	Thr	Asn	Ile	Val	Ser	Lys	Thr	Pro	Gln	Ala	Pro
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Phe	Pro	Thr	Cys	Pro	Asn	Arg	Lys	Lys	Val	Phe	Val	Glu	Asp	Asp	Glu
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Asn	Ser	Ser	Gln	Lys	Arg	Ser	Val	Ile	Val	Cys	Gln	Ser	Arg	Asn	Glu
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Ala	Gln	Gly	Lys	Thr	Val	Ser	Gln	Asn	Gln	Pro	Asp	Val	Ser	His	Thr
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Ser	Arg	Pro	Ser	Pro	Ser	Ile	Ala	Val	Lys	Ala	Asn	Thr	Asn	Lys	Pro
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His	Val	Pro	Lys	Pro	Ile	Glu	Pro	Leu	His	Asn	Leu	Ser	Leu	Thr	Glu
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Lys	Ser	Trp	Pro	Lys	Asp	Ser	Ser	Val	Val	Tyr	Ala	Lys	Ser	Leu	Glu
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His	Ser	Gly	Ser	Leu	Asp	Asp	Pro	Asn	Arg	Ile	Ser	Leu	Val	Lys	Arg

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Leu Ala Leu Lys Arg Pro Arg Pro Pro Val Leu Ser Val Cys Ser Ser
          275          280          285
Ser Glu Thr Pro Tyr Leu Leu Lys Glu Thr Asn Lys Gly Asn Gly Gln
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Gly Glu Asp Arg Asn Leu Leu Tyr Tyr Ser Lys Leu Gly Leu Val Ile
305          310          315          320
Pro Ser Ser Gly Ser Gly Ser Gly Asn Gln Ser Ile Asp Arg Ser Gly
          325          330          335
Pro Leu Val Lys Ser Leu Leu Arg Arg Ser Leu Ser Met Asp Ser Gln
          340          345          350
Val Pro Val Tyr Ser Pro Ser Ile Asp Leu Lys Ser Ser Gln Gly Ser
          355          360          365
Ser Ser Val Ser Ser Asp Ala Pro Gly Asn Val Leu Cys Ala Leu Ser
          370          375          380
Gln Lys Ser Ser Leu Lys Asp Cys Ser Glu Lys Thr Ala Leu Asp Asp
385          390          395          400
Arg Pro Gln Val Leu Gln Pro His Arg Leu Arg Ser Phe Ser Ala Ser
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Gln Ser Thr Asp Arg Glu Gly Ala Ser Pro Val Thr Glu Val Arg Ile
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Lys Thr Glu Pro Ser Ser Pro Leu Ser Asp Pro Ser Asp Ile Ile Arg
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Val Thr Val Gly Asp Ala Ala Thr Thr Ala Ala Ala Ser Ser Ser Ser
          450          455          460
Val Thr Arg Asp Leu Ser Leu Lys Thr Glu Asp Asp Gln Lys Asp Met
465          470          475          480
Ser Arg Leu Pro Ala Lys Arg Arg Phe Gln Ala Asp Arg Arg Leu Pro
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Phe Lys Lys Leu Lys Val Asn Glu His Gly Ser Pro Val Ser Glu Asp
          500          505          510
Asn Phe Glu Glu Gly Ser Ser Pro Thr Leu Leu Asp Ala Asp Phe Pro
          515          520          525
Asp Ser Asp Leu Asn Lys Asp Glu Phe Gly Glu Leu Glu Gly Thr Arg
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Pro Asn Lys Lys Phe Lys Cys Lys His Cys Leu Lys Ile Phe Arg Ser
545          550          555          560
Thr Ala Gly Leu His Arg His Val Asn Met Tyr His Asn Pro Glu Lys
          565          570          575
Pro Tyr Ala Cys Asp Ile Cys His Lys Arg Phe His Thr Asn Phe Lys
          580          585          590
Val Trp Thr His Cys Gln Thr Gln His Gly Ile Val Lys Asn Pro Ser
          595          600          605
Pro Ala Ser Ser Ser His Ala Val Leu Asp Glu Lys Phe Gln Arg Lys
          610          615          620
Leu Ile Asp Ile Val Arg Glu Arg Glu Ile Lys Lys Ala Leu Ile Ile
625          630          635          640
Lys Leu Arg Arg Gly Lys Pro Gly Phe Gln Gly Gln Ser Ser Ser Gln
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Lys Val Ala Lys Pro Lys Glu His Ala Pro Leu Ala Ser Pro Val Glu
705                710                715                720
Asn Lys Glu Val Tyr Gln Cys Arg Leu Cys Asn Ala Lys Leu Ser Ser
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Leu Leu Glu Gln Gly Ser His Glu Arg Leu-Cys Arg Asn Ala Ala Val
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Cys Pro Tyr Cys Ser Leu Arg Phe Phe Ser Pro Glu Leu Lys Gln Glu
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His Glu Ser Lys Cys Glu Tyr Lys Lys Leu Thr Cys Leu Glu Cys Met
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785                790                795                800
His Asn Gln Asn Asn Met Ala Pro Thr Glu Asn Phe Ser Leu Pro Val
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Leu Asp His Asn Gly Asp Val Thr Gly Ser Ser Arg Pro Gln Ser Gln
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Pro Glu Pro Asn Lys Val Asn His Ile Val Thr Thr Lys Asp Asp Asn
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Val Phe Ser Asp Ser Ser Glu Gln Val Asn Phe Asp Ser Glu Asp Ser
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Ser Cys Leu Pro Glu Asp Leu Ser Leu Ser Lys Gln Leu Lys Ile Gln
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Val Lys Glu Glu Pro Val Glu Glu Ala Glu Glu Glu Ala Pro Glu Ala
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Ser Thr Ala Pro Lys Glu Ala Gly Pro Ser Lys Glu Ala Ser Leu Trp
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Pro Cys Glu Lys Cys Gly Lys Met Phe Thr Val His Lys Gln Leu Glu
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Cys Asn Lys Ala Phe Arg Thr Asn Phe Arg Leu Trp Ser His Phe Gln
945                950                955                960
Ser His Met Ser Gln Ala Ser Glu Glu Ser Ala His Lys Glu Ser Glu
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Pro Pro Pro Leu Pro Lys Ile Gln Pro Leu Glu Pro Asp Ser Pro Thr
        995                1000                1005
Gly Leu Ser Glu Asn Pro Thr Pro Ala Thr Glu Lys Leu Phe Val Pro
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Gln Glu Ser Asp Thr Leu Phe Tyr His Ala Pro Pro Leu Ser Ala Ile
1025                1030                1035                1040
Thr Phe Lys Arg Gln Phe Met Cys Lys Leu Cys His Arg Thr Phe Lys
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<211> 579

<212> DNA

<213> Homo sapiens

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<210> 3402

<211> 148

<212> PRT

<213> Homo sapiens

<400> 3402

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Val	Tyr	Thr	Arg	Leu	Gly	Glu	Met	Asn	Asn	Ala	Val	Arg	Asn	Leu	Gln
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Glu	Leu	Leu	Glu	Leu	Asp	Ser	Ser	Ser	Ser	Leu	Cys	Val	Leu	Val	Ser
		50						55				60			
Thr	Val	Gly	Lys	Leu	Cys	Arg	Leu	Ile	Asn	Glu	Asp	Val	Asn	Glu	Gln
65					70					75				80	
Val	Met	Gln	Val	Leu	Gly	Pro	Glu	Asp	Leu	Gln	Ser	Ile	Ile	Tyr	Lys
			85					90						95	
Leu	Glu	Glu	His	Glu	Glu	Phe	Phe	Pro	Ala	Phe	Gln	Ala	Phe	Thr	Asn
			100					105					110		
Asp	Leu	Leu	Glu	Ile	Leu	Glu	Ile	Asp	Asp	Ser	Gly	Cys	His	Cys	Thr
		115						120				125			
Cys	Ser	Lys	Glu	Ile	Lys	Ser	Thr	Phe	Ile	Leu	Lys	Thr	Asn	Gln	Ile
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145															

<210> 3403

<211> 1696

<212> DNA

<213> Homo sapiens

<400> 3403

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<210> 3404

<211> 286

<212> PRT

<213> Homo sapiens

<400> 3404

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Ala	Ser	Glu	Cys	Thr	Glu	Leu	Pro	Lys	Ala	Glu	Lys	Trp	Arg	Arg	Gln	35	40	45	
Ile	Ile	Gly	Glu	Ile	Ser	Lys	Lys	Val	Ala	Gln	Ile	Gln	Asn	Ala	Gly	50	55	60	
Leu	Gly	Glu	Phe	Arg	Ile	Arg	Asp	Leu	Asn	Asp	Glu	Ile	Asn	Lys	Leu	65	70	75	80
Leu	Arg	Glu	Lys	Gly	His	Trp	Glu	Val	Arg	Ile	Lys	Glu	Leu	Gly	Gly	85	90	95	
Pro	Asp	Tyr	Gly	Lys	Val	Gly	Pro	Lys	Met	Leu	Asp	His	Glu	Gly	Lys	100	105	110	
Glu	Val	Pro	Gly	Asn	Arg	Gly	Tyr	Lys	Tyr	Phe	Gly	Ala	Ala	Lys	Asp	115	120	125	
Leu	Pro	Gly	Val	Arg	Glu	Leu	Phe	Glu	Lys	Xaa	Thr	Ser	Ser	Ser	Ser	130	135	140	
Gln	Xaa	Lys	Thr	Arg	Ala	Glu	Leu	Met	Lys	Ala	Ile	Asp	Phe	Glu	Tyr	145	150	155	160
Tyr	Gly	Tyr	Leu	Asp	Glu	Asp	Asp	Gly	Val	Ile	Val	Pro	Leu	Glu	Gln	165	170	175	
Glu	Tyr	Glu	Lys	Lys	Leu	Arg	Ala	Glu	Leu	Val	Glu	Lys	Trp	Lys	Ala	180	185	190	
Glu	Arg	Glu	Ala	Arg	Leu	Ala	Arg	Gly	Glu	Lys	Glu	Glu	Glu	Glu	Glu	195	200	205	
Glu	Glu	Glu	Glu	Ile	Asn	Ile	Tyr	Ala	Val	Thr	Glu	Glu	Glu	Ser	Asp	210	215	220	
Glu	Glu	Gly	Ser	Gln	Glu	Lys	Gly	Gly	Asp	Asp	Ser	Gln	Gln	Lys	Phe	225	230	235	240
Ile	Ala	His	Val	Pro	Val	Pro	Ser	Gln	Gln	Glu	Ile	Glu	Glu	Ala	Leu	245	250	255	
Val	Arg	Arg	Lys	Lys	Met	Glu	Leu	Leu	Gln	Lys	Tyr	Ala	Ser	Glu	Thr	260	265	270	
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<210> 3405

<211> 402

<212> DNA

<213> Homo sapiens

<400> 3405

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<210> 3406

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3406

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20     25     30
Asp Arg Gly Leu Lys Thr Leu Glu Asn Leu Leu Ala Ser Ile Arg Lys
35     40     45
Gly Asn Ala Ile Asp Glu Ala Asp Ile Pro Pro Pro Val Ala Ile Gly
50     55     60
Lys Gly Pro Ala Ser Thr Pro Thr Tyr Ser Pro Ala Pro Thr Gln Pro
65     70     75     80
Ala Pro Arg Ile Ala Ser Ala Pro Glu Pro Arg Val Thr Leu Glu Gly
85     90     95
Pro Ser Ala Thr Ala Pro Ala Ser Ser Pro Gly Leu Ala Lys Pro Gln
100    105    110
Met Pro Pro Gly Pro Cys Ser Pro Pro Ser Gly Pro Val Ala Glu Pro
115    120    125
Pro Ala Arg Leu Gln Ala
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<210> 3407

<211> 535

<212> DNA

<213> Homo sapiens

<400> 3407

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120

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 180
 ccggcggggga cctttcccgga ancacctggc ctctctggca agcaggtggc ggcaccaaca
 240
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 300
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<210> 3408
 <211> 131
 <212> PRT
 <213> Homo sapiens

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 Val Ala Ala Pro Thr Gly Pro Gly Gly Thr Phe Pro Gly His Pro Thr
 35 40 45
 Ser Ser Val Ala Arg Gln Val Ala Ala Pro Thr Gly Pro Ala Gly Thr
 50 55 60
 Phe Pro Gly Xaa Pro Gly Leu Leu Gly Lys Gln Val Ala Ala Pro Thr
 65 70 75 80
 Gly Pro Gly Gly Thr Phe Pro Gly His Leu Ala Ser Ser Ala Arg Gln
 85 90 95
 Val Ala Glu Leu Val Pro Arg Leu Ile Phe Leu Arg Gln Thr Cys Leu
 100 105 110
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 115 120 125
 Trp Leu Ile
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<210> 3409
 <211> 959
 <212> DNA
 <213> Homo sapiens

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 120
 gagagagagg aaccttgccg gtccgaggca gctctgcgcg tcccctcctg cgcttagcat
 180
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 240

ctgcagtggg accgcaagct gagcgagctg tcagagcccg gggacggcga ggccctcatg
 300
 taccacacgc acttctcaga acttctggat gagttttccc agaacgtctt gggtcagctc
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 420
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 540
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<210> 3410

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3410

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Lys	Leu	Ser	Glu	Leu	Ser	Glu	Pro	Gly	Asp	Gly	Glu	Ala	Leu	Met	Tyr
			20					25					30		
His	Thr	His	Phe	Ser	Glu	Leu	Leu	Asp	Glu	Phe	Ser	Gln	Asn	Val	Leu
			35				40					45			
Gly	Gln	Leu	Leu	Asn	Asp	Pro	Phe	Leu	Ser	Glu	Lys	Ser	Val	Ser	Met
			50			55					60				
Glu	Val	Glu	Pro	Ser	Pro	Thr	Ser	Pro	Ala	Pro	Leu	Ile	Gln	Ala	Glu
65					70					75				80	
His	Ser	Tyr	Ser	Leu	Cys	Glu	Glu	Pro	Arg	Ala	Gln	Ser	Pro	Phe	Thr
				85					90					95	
His	Ile	Thr	Thr	Ser	Asp	Ser	Phe	Asn	Asp	Asp	Glu	Val	Glu	Ser	Xaa
			100					105					110		
Arg	Asn	Gly	Thr	Cys	Leu	Gln	Thr	Ser	Leu	Gln	His	Pro	Ser	Arg	Gln
			115				120					125			
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<210> 3411

<211> 958

<212> DNA

<213> Homo sapiens

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<210> 3412
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 3412
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 Thr Val Gly Lys Leu Lys Thr His Leu Ser Asn Val Tyr Pro Ser Lys
 35 40 45
 Pro Leu Thr Lys Asp Gln Arg Leu Val Tyr Ser Gly Arg Leu Leu Pro
 50 55 60
 Asp His Leu Gln Leu Lys Asp Ile Leu Arg Lys Gln Asp Glu Tyr His
 65 70 75 80
 Met Val His Leu Val Cys Thr Ser Arg Thr Pro Pro Ser Ser Pro Lys
 85 90 95
 Ser Ser Thr Asn Arg Glu Ser His Glu Ala Leu Ala Ser Ser Ser Asn

	100		105		110										
Ser	Ser	Ser	Asp	His	Ser	Gly	Ser	Thr	Thr	Pro	Ser	Ser	Gly	Gln	Glu
	115						120					125			
Thr	Leu	Ser	Leu	Ala	Val	Gly	Ser	Ser	Ser	Glu	Gly	Leu	Arg	Gln	Arg
	130						135					140			
Thr	Leu	Pro	Gln	Ala	Gln	Thr	Asp	Gln	Ala	Gln	Ser	His	Gln	Phe	Pro
145					150					155					160
Tyr	Val	Met	Gln	Gly	Asn	Val	Asp	Asn	Gln	Phe	Pro	Gly	Gln	Ala	Ala
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Pro	Pro	Gly	Phe	Pro	Val	Tyr	Pro	Ala							
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<210> 3413

<211> 3344

<212> DNA

<213> Homo sapiens

<400> 3413

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1080

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<211> 723

<212> PRT

<213> Homo sapiens

<400> 3414

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			20					25				30			
Tyr	Gly	Cys	Val	Gln	Gln	Pro	Lys	Thr	Gln	Glu	Ser	Lys	Leu	Lys	Ile
		35					40					45			
Gly	Gly	Val	Ser	Ser	Val	Asn	Glu	Arg	Pro	Ile	Ala	Gln	Gln	Leu	Asn
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65					70					75				80	
Pro	Ser	Val	Pro	Ala	Val	Ala	Ile	Lys	Val	Phe	Cys	Ser	Gly	Cys	Lys
				85					90					95	
Lys	Met	Leu	Tyr	Lys	Gly	Gln	Thr	Ala	Tyr	His	Lys	Thr	Gly	Ser	Thr
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Gln	Leu	Phe	Cys	Ser	Thr	Arg	Cys	Ile	Thr	Arg	His	Ser	Ser	Pro	Ala
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Cys	Leu	Pro	Pro	Pro	Pro	Lys	Lys	Thr	Cys	Thr	Asn	Cys	Ser	Lys	Asp
		130				135					140				
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			165						170					175	
Lys	Lys	Lys	Pro	Val	Val	Thr	Ile	Tyr	Thr	Lys	Ser	Ile	Ser	Thr	Lys
			180					185					190		
Cys	Ser	Met	Cys	Gln	Lys	Asn	Ala	Asp	Thr	Arg	Phe	Glu	Val	Lys	Tyr

	195					200					205				
Gln	Asn	Val	Val	His	Gly	Leu	Cys	Ser	Asp	Ala	Cys	Phe	Ser	Lys	Phe
	210					215					220				
His	Ser	Thr	Asn	Asn	Leu	Thr	Thr	Asn	Cys	Cys	Glu	Asn	Cys	Gly	Ser
225					230					235					240
Tyr	Cys	Tyr	Ser	Ser	Ser	Gly	Pro	Cys	Gln	Ser	Gln	Lys	Val	Phe	Ser
				245					250					255	
Ser	Thr	Ser	Val	Thr	Ala	Tyr	Lys	Gln	Asn	Ser	Ala	Gln	Ile	Pro	Pro
			260					265					270		
Tyr	Ala	Leu	Gly	Lys	Ser	Leu	Arg	Ser	Ser	Ala	Glu	Met	Ile	Glu	Asn
		275					280					285			
Thr	Asn	Ser	Leu	Gly	Lys	Thr	Glu	Leu	Phe	Cys	Ser	Ile	Asn	Cys	Leu
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Ser	Ala	Tyr	Arg	Val	Lys	Thr	Val	Thr	Ser	Ala	Gly	Val	Gln	Val	Ser
305					310					315					320
Cys	His	Ser	Cys	Lys	Thr	Ser	Ala	Ile	Pro	Gln	Tyr	His	Leu	Ala	Met
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Phe	Gln	Asn	Val	Phe	Ser	Lys	Pro	Lys	Gly	Thr	Asn	Ser	Ser	Ala	Val
		355					360					365			
Pro	Leu	Ser	Gln	Gly	Gln	Val	Val	Val	Ser	Pro	Pro	Ser	Ser	Arg	Ser
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Ile	Arg	Gly	Ser	Ala	Ala	Ala	Ser	Leu	Gln	Pro	Leu	Gly	Glu	Gln	Ser
				405					410					415	
Gln	Gln	Val	Ala	Leu	Thr	His	Thr	Val	Val	Lys	Leu	Lys	Cys	Gln	His
			420					425					430		
Cys	Asn	His	Leu	Phe	Ala	Thr	Lys	Pro	Glu	Leu	Leu	Phe	Tyr	Lys	Gly
		435					440					445			
Lys	Met	Phe	Leu	Phe	Cys	Gly	Lys	Asn	Cys	Ser	Asp	Glu	Tyr	Lys	Lys
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Val	Lys	Glu	Thr	Val	Arg	Phe	Ser	Gly	Ala	Asp	Lys	Ser	Phe	Cys	Ser
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Glu	Gly	Cys	Lys	Leu	Leu	Tyr	Lys	His	Asp	Leu	Ala	Lys	Arg	Trp	Gly
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Val	Gln	Asn	Arg	Leu	Glu	Gly	Lys	Leu	Glu	Glu	Phe	Cys	Cys	Glu	Asp
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Cys	Met	Ser	Lys	Phe	Thr	Val	Leu	Phe	Tyr	Gln	Met	Ala	Lys	Cys	Asp
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625		630		635		640
Leu Ser Thr Gly	Asn Thr Asn Ser	Val Leu Lys Gly	Ala Val Thr Lys			
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Glu Ala Ala Lys	Ile Ile Gln Asp	Glu Ser Thr Gln	Glu Asp Ala Met			
	660		665		670	
Lys Phe Pro Ser	Ser Gln Ser Ser	Gln Pro Ser Arg	Leu Leu Lys Asn			
	675		680		685	
Lys Gly Ile Ser	Cys Lys Pro Val	Thr Gln Thr Lys	Ala Thr Ser Cys			
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<210> 3415

<211> 3501

<212> DNA

<213> Homo sapiens

<400> 3415

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480
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1020

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<210> 3416

<211> 259

<212> PRT

<213> Homo sapiens

<400> 3416

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			20					25					30		
Asn	Pro	Ala	Phe	Lys	Pro	Val	Leu	Ala	Ile	Ile	Gln	Ala	Gly	Asp	Asp
		35					40				45				
Asn	Leu	Met	Gln	Glu	Ile	Asn	Gln	Asn	Leu	Ala	Glu	Glu	Ala	Gly	Leu
		50				55					60				
Asn	Ile	Thr	His	Ile	Cys	Leu	Pro	Pro	Asp	Ser	Ser	Glu	Ala	Glu	Ile
65				70					75					80	
Ile	Asp	Glu	Ile	Leu	Lys	Ile	Asn	Glu	Asp	Thr	Arg	Val	His	Gly	Leu
			85					90						95	
Ala	Leu	Gln	Ile	Ser	Glu	Asn	Leu	Phe	Ser	Asn	Lys	Val	Leu	Asn	Ala
		100					105						110		
Leu	Lys	Pro	Glu	Lys	Asp	Val	Asp	Gly	Val	Thr	Asp	Ile	Asn	Leu	Gly
		115				120					125				
Lys	Leu	Val	Arg	Gly	Asp	Ala	His	Glu	Cys	Phe	Val	Ser	Pro	Val	Ala

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Lys Ala Val Ile Glu Leu Leu Glu Lys Ser Val Gly Val Asn Leu Asp
145              150              155              160
Gly Lys Lys Ile Leu Val Val Gly Ala His Gly Ser Leu Glu Ala Ala
      165              170              175
Leu Gln Cys Leu Phe Gln Arg Lys Gly Ser Met Thr Met Ser Ile Gln
      180              185              190
Trp Lys Thr Arg Gln Leu Gln Ser Lys Leu His Glu Ala Asp Ile Val
      195              200              205
Val Leu Gly Ser Pro Lys Pro Glu Glu Ile Pro Leu Thr Trp Ile Gln
      210              215              220
Pro Gly Thr Thr Val Leu Asn Cys Ser His Asp Phe Leu Ser Gly Lys
225              230              235              240
Val Gly Cys Gly Ser Pro Arg Ile Xaa Ile Leu Val Asp Ser Leu Arg
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Lys Met Met

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<210> 3417

<211> 405

<212> DNA

<213> Homo sapiens

<400> 3417

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180
attacaatcg attggaacaa gctccagagc ctctcgcat tccagcctgc attgctcttt
240
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300
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<210> 3418

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3418

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      20      25      30
Ile Phe Arg Ser Leu His Thr Leu Val Gly Gln Leu Asp Leu Arg Asp
      35      40      45
Asp Val Val Lys Ile Thr Ile Asp Trp Asn Lys Leu Gln Ser Leu Ser
50      55      60
Ala Phe Gln Pro Ala Leu Leu Phe Ser Ala Leu Glu Gln His Ile Leu

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65              70              75              80
Tyr Leu Gln Val Asn Phe Leu Leu Glu Met Ile Thr Arg Tyr
      85              90

<210> 3419
<211> 418
<212> DNA
<213> Homo sapiens

<400> 3419
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120
aatggggcta cgtcgcgtga cctcacgtgt ggctcctctg agcgtagtgc tttccagggc
180
aaccgtgtca cagtgcagat ggacgcacgg acggcgggtga gcctttaacg ccaagcaaca
240
agtcccattg tggacggagg tttgcatttc tcctgggtcc acatctatgg tgccccata
300
gggcgccttg aggcctcgccc cggtcaggct tgccatttct ggggaagagg actggggggg
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418

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<210> 3420
<211> 105
<212> PRT
<213> Homo sapiens

<400> 3420
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Ile Asp Val Asp Pro Gly Glu Met Gln Thr Ser Val His Asn Gly Thr
      20              25              30
Cys Cys Leu Ala Leu Lys Ala His Arg Arg Pro Cys Val His Leu His
      35              40              45
Cys Asp Thr Val Ala Leu Glu Ser Thr Thr Leu Arg Gly Thr Thr Arg
      50              55              60
Glu Val Thr Arg Arg Ser Pro Ile Asn Met Lys His Pro Glu Gln Gly
65              70              75              80
Glu Pro Gly Gly Pro Ala Asp Gln Trp Val Pro Arg Arg Glu Trp Ala
      85              90              95
Gly Trp Asp Gly Ser Gly Val Asn Arg
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<210> 3421
<211> 2988
<212> DNA
<213> Homo sapiens
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300
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420
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<210> 3422

<211> 418

<212> PRT

<213> Homo sapiens

<400> 3422

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	50					55					60						
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65					70					75					80		
Ser	Ser	Phe	Leu	Gly	Gln	Leu	Phe	Ser	Gln	His	Pro	Asp	Val	Phe	Tyr		
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Leu	Met	Glu	Pro	Ala	Trp	His	Val	Trp	Thr	Thr	Leu	Ser	Gln	Gly	Ser		
			100					105					110				
Ala	Ala	Thr	Leu	His	Met	Ala	Val	Arg	Asp	Leu	Met	Arg	Ser	Ile	Phe		
		115					120					125					
Leu	Cys	Asp	Met	Asp	Val	Phe	Asp	Ala	Tyr	Met	Glu	Pro	Gly	Pro	Arg		
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Arg	Gln	Ser	Ser	Leu	Phe	Gln	Trp	Glu	Asn	Ser	Arg	Ala	Leu	Cys	Ser		
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His	Cys	Arg	Leu	Leu	Cys	Ser	Gln	Gln	Pro	Phe	Glu	Val	Val	Glu	Lys		
			180				185						190				
Ala	Cys	Arg	Ser	Tyr	Ser	His	Val	Val	Leu	Lys	Glu	Val	Arg	Phe	Phe		
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Asn	Leu	Gln	Ser	Leu	Tyr	Pro	Leu	Leu	Lys	Asp	Pro	Ser	Leu	Asn	Leu		
	210					215					220						
His	Ile	Val	His	Leu	Val	Arg	Asp	Pro	Arg	Ala	Val	Leu	Arg	Ser	Arg		
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Glu	Ala	Ala	Gly	Pro	Ile	Leu	Ala	Arg	Asp	Asn	Gly	Ile	Val	Leu	Gly		
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			260					265					270				
Glu	Val	Cys	Arg	Ser	His	Val	Arg	Ile	Ala	Glu	Ala	Ala	Thr	Leu	Lys		
	275						280				285						
Pro	Pro	Pro	Phe	Leu	Arg	Gly	Arg	Tyr	Arg	Leu	Val	Arg	Phe	Glu	Asp		
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Leu	Ala	Arg	Glu	Pro	Leu	Ala	Glu	Ile	Arg	Ala	Leu	Tyr	Ala	Phe	Thr		
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Gly	Leu	Thr	Leu	Thr	Pro	Gln	Leu	Glu	Ala	Trp	Ile	His	Asn	Ile	Thr		
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<210> 3423

<211> 1851

<212> DNA

<213> Homo sapiens

<400> 3423

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 1740
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 1851

<210> 3424

<211> 136

<212> PRT

<213> Homo sapiens

<400> 3424

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Gln	Arg	Trp	Val	Ile	Gly	Arg	Cys	Leu	Cys	Val	Pro	Glu	Arg	Ser	Leu
			20					25					30		
Ala	Ser	Tyr	Gly	Val	Arg	Gln	Asp	Gly	Asp	Pro	Ala	Phe	Leu	Tyr	Leu
		35					40					45			
Leu	Ser	Ala	Pro	Arg	Glu	Ala	Pro	Ala	Thr	Gly	Pro	Ser	Pro	Gln	His
		50				55					60				
Pro	Gln	Lys	Met	Asp	Gly	Glu	Leu	Gly	Arg	Leu	Phe	Pro	Pro	Ser	Leu
65					70				75					80	
Gly	Leu	Pro	Pro	Gly	Pro	Gln	Pro	Ala	Ala	Ser	Ser	Leu	Pro	Ser	Pro
			85					90					95		
Leu	Gln	Pro	Ser	Trp	Ser	Cys	Pro	Ser	Cys	Thr	Phe	Ile	Asn	Ala	Pro
		100						105					110		
Asp	Arg	Pro	Gly	Cys	Glu	Met	Cys	Ser	Thr	Gln	Arg	Pro	Cys	Thr	Trp
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<210> 3425

<211> 1416

<212> DNA

<213> Homo sapiens

<400> 3425

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 180
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 240
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 300

gaatgcggct tctgctactg ccgcccgcac gccgaggcgc acaggcagaa gttcctcagt
 360
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 420
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 540
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 600
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 720
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<210> 3426

<211> 410

<212> PRT

<213> Homo sapiens.

<400> 3426

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 Ser Leu Gly Arg Asp Pro Gly Arg Glu Glu Glu Val Arg Pro Arg Gly
 35 40 45
 Arg Lys Ala Ala Ser Pro Gly Ala Pro Arg Pro Trp Pro Arg His Ser
 50 55 60
 Thr His Met Ala Ser Gly Val Gly Ala Ala Phe Glu Glu Leu Pro His

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Asp	Gly	Thr	Cys	Asp	Glu	Cys	Glu	Pro	Asp	Glu	Ala	Pro	Gly	Ala	Glu
				85					90					95	
Glu	Val	Cys	Arg	Glu	Cys	Gly	Phe	Cys	Tyr	Cys	Arg	Arg	His	Ala	Glu
			100					105					110		
Ala	His	Arg	Gln	Lys	Phe	Leu	Ser	His	His	Leu	Ala	Glu	Tyr	Val	His
		115					120					125			
Gly	Ser	Gln	Ala	Trp	Thr	Pro	Pro	Ala	Asp	Gly	Glu	Gly	Ala	Gly	Lys
	130					135					140				
Glu	Glu	Ala	Glu	Val	Lys	Val	Glu	Gln	Glu	Arg	Glu	Ile	Glu	Ser	Glu
145					150					155					160
Ala	Gly	Glu	Glu	Ser	Glu	Ser	Glu	Glu	Glu	Ser	Glu	Ser	Glu	Glu	Glu
				165					170					175	
Ser	Glu	Thr	Glu	Glu	Glu	Ser	Glu	Asp	Glu	Ser	Asp	Glu	Glu	Ser	Glu
			180					185					190		
Glu	Asp	Ser	Glu	Glu	Glu	Met	Glu	Asp	Glu	Gln	Glu	Ser	Glu	Ala	Glu
	195						200					205			
Glu	Asp	Asn	Gln	Glu	Glu	Gly	Glu	Ser	Glu	Ala	Glu	Gly	Glu	Thr	Glu
	210					215					220				
Ala	Glu	Ser	Glu	Phe	Asp	Pro	Glu	Ile	Glu	Met	Glu	Ala	Glu	Arg	Val
225					230					235					240
Ala	Lys	Arg	Lys	Cys	Pro	Asp	His	Gly	Leu	Asp	Leu	Ser	Thr	Tyr	Cys
			245					250						255	
Gln	Glu	Asp	Arg	Gln	Leu	Ile	Cys	Val	Leu	Cys	Pro	Val	Ile	Gly	Ala
			260					265					270		
His	Gln	Gly	His	Gln	Leu	Ser	Thr	Leu	Asp	Glu	Ala	Phe	Glu	Glu	Leu
	275						280					285			
Arg	Ser	Lys	Asp	Ser	Gly	Gly	Leu	Lys	Ala	Ala	Met	Ile	Glu	Leu	Val
	290					295					300				
Glu	Arg	Leu	Lys	Phe	Lys	Ser	Ser	Asp	Pro	Lys	Val	Thr	Arg	Asp	Gln
305					310					315					320
Met	Lys	Met	Phe	Ile	Gln	Gln	Glu	Phe	Lys	Lys	Val	Gln	Lys	Val	Ile
			325					330					335		
Ala	Asp	Glu	Glu	Gln	Lys	Ala	Leu	His	Leu	Val	Asp	Ile	Gln	Glu	Ala
			340					345					350		
Met	Ala	Thr	Ala	His	Val	Thr	Glu	Ile	Leu	Ala	Asp	Ile	Gln	Ser	His
	355						360					365			
Met	Asp	Arg	Leu	Met	Thr	Gln	Met	Ala	Gln	Ala	Lys	Glu	Gln	Leu	Asp
	370					375					380				
Thr	Ser	Asn	Glu	Ser	Ala	Glu	Pro	Lys	Ala	Glu	Gly	Asp	Glu	Glu	Gly
385					390					395					400
Pro	Ser	Gly	Ala	Ser	Glu	Glu	Glu	Asp	Thr						
				405					410						

<210> 3427

<211> 580

<212> DNA

<213> Homo sapiens

<400> 3427

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120

gggctctggat tgagacttgg accttctgag cactggcaga tgtactggct tctcttcagg
 180
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 240
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 300
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 360
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 420
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 480
 ccctgaagcc ccattggtcca gttccaattc ctgaagcctt ctactgcttg cagggcctgg
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<210> 3428

<211> 132

<212> PRT

<213> Homo sapiens

<400> 3428

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Glu	Asn	Lys	Pro	Arg	Pro	Ser	Leu	Tyr	Ser	Leu	Gln	Asn	Phe	Glu	Glu
			20					25					30		
Met	Glu	Thr	Glu	Asp	Cys	Glu	Lys	Met	Ser	Asn	Met	Gly	Thr	Leu	Asn
		35					40					45			
Ser	Ser	Met	Leu	His	Arg	Ser	Ala	Glu	Ser	Leu	Lys	Ser	Leu	Ser	Ser
	50					55				60					
Glu	Leu	Cys	Pro	Glu	Lys	Ile	Leu	Pro	Glu	Glu	Lys	Pro	Val	His	Leu
65					70				75					80	
Pro	Val	Leu	Arg	Arg	Ser	Lys	Ser	Gln	Ser	Arg	Pro	Gln	Gln	Val	Lys
			85					90					95		
Phe	Ser	Asp	Asp	Val	Ile	Asp	Asn	Gly	Asn	Tyr	Asp	Ile	Glu	Ile	Arg
		100					105					110			
Gln	Pro	Pro	Met	Ser	Glu	Arg	Thr	Arg	Arg	Arg	Val	Tyr	Asn	Phe	Glu
		115					120					125			
Glu	Arg	Gly	Ser												
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<210> 3429

<211> 634

<212> DNA

<213> Homo sapiens

<400> 3429

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 120
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 180

gtccctctgt cctacacggt caccacagt acgacccaag gcttcccctt gcctacaggc
 240
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 300
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 420
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 480
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<210> 3430

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3430

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Arg	Arg	Ser	Leu	His	Glu	Gln	Val	His	Gln	Gly	Pro	Val	Pro	Leu	Ser
			20					25					30		
Tyr	Thr	Val	Thr	Thr	Val	Thr	Thr	Gln	Gly	Phe	Pro	Leu	Pro	Thr	Gly
		35				40						45			
Gln	His	Ile	Pro	Gly	Cys	Ser	Ala	Gln	Gln	Leu	Pro	Ala	Cys	Ser	Val
	50					55				60					
Met	Phe	Ser	Gly	Gln	His	Tyr	Pro	Leu	Cys	Cys	Leu	Pro	Pro	Pro	Leu
65					70					75					80
Ile	Gln	Ala	Cys	Thr	Met	Gln	Gln	Leu	Pro	Val	Pro	Tyr	Gln	Ala	Tyr
				85				90						95	
Pro	His	Leu	Ile	Ser	Ser	Asp	His	Tyr	Ile	Leu	His	Pro	Pro	Pro	Pro
			100				105						110		
Gly	Thr	His	Pro	Ala	Ala	Pro	Gly	Ser	Val						
			115				120								

<210> 3431

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 3431

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 120
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 180
 agcgccgcca gccgtgtcgc caacagtacc aaatcgctcg gcagcggctt cgccccgccg
 240

gacttcaacc attgcctcaa ggattgggac tataatggcc ttctgtgct caccaccaac
 300
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 360
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 420
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 660
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 720
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 960
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 1200
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 1260
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 1396

<210> 3432

<211> 296

<212> PRT

<213> Homo sapiens

<400> 3432

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 Arg Val Ala Leu Ala Gly Glu Leu Val Gly Val Gly Gly His Phe Leu
 35 40 45
 Phe Leu Gly Leu Ala Leu Val Ser Lys Asp Trp Arg Phe Leu Gln Arg

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<210> 3433
<211> 1257
<212> DNA
<213> Homo sapiens
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120
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180
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240
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480
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 600
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 660
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 720
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 780
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 840
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 900
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 960
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 1020
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 1080
 ccaccacccc acctacacca tcccaccatc tacgccattg ccaaattctac acagacgacc
 1140
 tcactcccat ccacgccttc acacgcacac ccgtccacac caccatctcc cccgtgtccg
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<210> 3434

<211> 311

<212> PRT

<213> Homo sapiens

<400> 3434

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			20					25					30		
Gly	Arg	Gln	Arg	Pro	Gln	Arg	Pro	Ser	His	Ser	Arg	Ser	His	Thr	Arg
		35					40					45			
Ser	Asn	Leu	Lys	Arg	Asp	Val	Ala	His	Leu	Tyr	Arg	Gly	Val	Gly	Ser
50						55					60				
Arg	Tyr	Ile	Met	Gly	Ser	Gly	Glu	Ser	Phe	Met	Gln	Leu	Gln	Gln	Arg
65					70					75				80	
Leu	Leu	Arg	Glu	Lys	Glu	Ala	Lys	Ile	Arg	Lys	Ala	Leu	Asp	Arg	Leu
				85					90					95	
Arg	Lys	Lys	Arg	His	Leu	Leu	Arg	Arg	Gln	Arg	Thr	Arg	Arg	Glu	Phe
			100					105					110		
Pro	Val	Ile	Ser	Val	Val	Gly	Tyr	Thr	Asn	Cys	Gly	Glu	His	Ala	Pro
		115					120					125			
Arg	Gly	Gly	Ala	Phe	Arg	Gly	Leu	Arg	Val	Thr	Gly	Glu	Asp	Ser	Pro
130						135					140				
Gly	Gly	Gly	Gln	Gly	Val	Pro	Val	Val	Ser	Val	Val	Pro	Tyr	Asp	Ser
145					150					155				160	
Cys	Gly	Glu	His	Val	Pro	Arg	Arg	Gly	Gly	Ser	His	Gly	Arg	Arg	Val

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<210> 3435
<211> 1225
<212> DNA
<213> Homo sapiens
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<400> 3435
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120
gacagcaatg ccgataccta ctgggagagc gatgggtccc agtgccaaca ctgggtacgg
180
cttactatga agaagggcac cattgtcaag aagctgctac tcgcagtgga taccacagat
240
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<210> 3436

<211> 408

<212> PRT

<213> Homo sapiens

<400> 3436

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 35 40 45
 Glu Ser Asp Gly Ser Gln Cys Gln His Trp Val Arg Leu Thr Met Lys
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 Lys Gly Thr Ile Val Lys Lys Leu Leu Leu Ala Val Asp Thr Thr Asp
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 Asp Asn Phe Met Pro Lys Arg Val Val Val Tyr Gly Gly Glu Gly Asp
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 Asn Leu Lys Lys Leu Ser Asp Val Ser Ile Asp Xaa Arg Pro Ser Ser
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 Gly Xaa Val Cys Val Leu Glu Asp Met Thr Val His Leu Pro Ile Ile
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 Glu Ile Arg Ile Val Glu Cys Arg Asp Asp Gly Ile Asp Val Arg Leu
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 Arg Gly Val Lys Ile Lys Ser Ser Arg Gln Arg Glu Leu Gly Leu Asn
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 Gly Thr Asp Pro Glu Val Leu Tyr Arg Arg Ala Val Leu Leu Gln Arg
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 Asp His Thr Leu Gly Thr Phe Ser Glu Ile Lys Gln Val Lys Gln Phe
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<210> 3437

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 3437

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<210> 3438

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3438

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<211> 287

<212> PRT

<213> Homo sapiens

<400> 3440

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Thr	Ser	Pro	Met	Pro	Pro	Pro	Ala	Ala	Leu	Arg	Pro	Pro	Ala	Gly
			50				55				60			Pro
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Phe	Leu	Ser	Ala	Pro	Leu	Val	Pro	Arg	Ser	Pro	Gly	Gly	Glu	Ser
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			180					185					190	Ser
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Ser	Phe	Glu	Asp	Ala	Pro	Ala	Gln	Pro	Ser	Pro	Gly	Val	Pro	Trp
			210				215				220			Arg
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<210> 3441

<211> 2074

<212> DNA

<213> Homo sapiens

<400> 3441

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<212> PRT

<213> Homo sapiens

<400> 3442

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<211> 2070

<212> DNA

<213> Homo sapiens

<400> 3443

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gatacctgga ttcattgattt tatgtcagag tatctgatag agctttcaaa agttaattaa
1740
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1800
ggcttaaaaa aaatcttaac tctgctacat ggctctgact gctgtggggg attgaaaaga
1860
atatgcttat gtttgatgaa agatatttaa caagttttgt tttacagag ttgacttttc
1920
aaagaaaatt gtacttgaat tattactata atattagaat aaaaatgttt atcaatataa
1980
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2040
aaaaaaaaaa aaaaaaaaaa aaaaaagggg
2070

<210> 3444

<211> 579

<212> PRT

<213> Homo sapiens

<400> 3444

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Leu Ala Val Asn Ala Glu Glu Asp Ala Trp Leu Arg Ala Gln Val Ile
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      20          25          30
Ser Glu Asn Val Glu Lys Ser Lys Ala Tyr Lys Leu Asn Pro Lys Phe
      35          40          45
Cys Ser Leu Ser Phe Gln Ala Thr Lys Cys Lys Leu Ala Gly Leu Glu
      50          55          60
Val Leu Ser Asp Asp Pro Asp Leu Val Lys Val Val Glu Ser Leu Thr
65          70          75          80
Cys Gly Lys Ile Phe Ala Val Glu Ile Leu Asp Lys Ala Asp Ile Pro
      85          90          95
Leu Val Val Leu Tyr Asp Thr Ser Gly Glu Asp Asp Ile Asn Ile Asn
      100          105          110
Ala Thr Cys Leu Lys Ala Ile Cys Asp Lys Ser Leu Glu Val His Leu
      115          120          125
Gln Val Asp Ala Met Tyr Thr Asn Val Lys Ile Thr Asn Ile Cys Ser
      130          135          140
Asp Gly Thr Leu Tyr Cys Gln Val Pro Cys Lys Gly Leu Asn Lys Leu
145          150          155          160
Ser Asp Leu Leu Arg Lys Ile Glu Asp Tyr Phe His Cys Lys His Met
      165          170          175
Thr Ser Glu Cys Phe Val Ser Leu Pro Phe Cys Gly Lys Ile Cys Leu
      180          185          190
Phe His Cys Lys Gly Lys Trp Leu Arg Val Glu Ile Thr Asn Val His
      195          200          205
Ser Ser Arg Ala Leu Asp Val Gln Phe Leu Asp Ser Gly Thr Val Thr
      210          215          220
Ser Val Lys Val Ser Glu Leu Arg Glu Ile Pro Pro Arg Phe Leu Gln
225          230          235          240
Glu Met Ile Ala Ile Pro Pro Gln Ala Ile Lys Cys Cys Leu Ala Asp
      245          250          255
Leu Pro Gln Ser Ile Gly Met Trp Thr Pro Asp Ala Val Leu Trp Leu
      260          265          270
Arg Asp Ser Val Leu Asn Cys Ser Asp Cys Ser Ile Lys Val Thr Lys
      275          280          285
Val Asp Glu Thr Arg Gly Ile Ala His Val Tyr Leu Phe Thr Pro Lys
      290          295          300
Asn Phe Pro Asp Pro His Arg Ser Ile Asn Arg Gln Ile Thr Asn Ala
305          310          315          320
Asp Leu Trp Lys His Gln Lys Asp Val Phe Leu Ser Ala Ile Ser Ser
      325          330          335
Gly Ala Asp Ser Pro Asn Ser Lys Asn Gly Asn Met Pro Met Ser Gly
      340          345          350
Asn Thr Gly Glu Asn Phe Arg Lys Asn Leu Thr Asp Val Ile Lys Lys
      355          360          365
Ser Met Val Asp His Thr Ser Ala Phe Ser Thr Glu Glu Leu Pro Pro
      370          375          380
Pro Val His Leu Ser Lys Pro Gly Glu His Met Asp Val Tyr Val Pro
385          390          395          400
Val Ala Cys His Pro Gly Tyr Phe Val Ile Gln Pro Trp Gln Glu Ile

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405 410 415
 His Lys Leu Glu Val Leu Met Glu Glu Met Ile Leu Tyr Tyr Ser Val
 420 425 430
 Ser Glu Glu Arg His Ile Ala Val Glu Lys Asp Gln Val Tyr Ala Ala
 435 440 445
 Lys Val Glu Asn Lys Trp His Arg Val Leu Leu Lys Gly Ile Leu Thr
 450 455 460
 Asn Gly Leu Val Ser Val Tyr Glu Leu Asp Tyr Gly Lys His Glu Leu
 465 470 475 480
 Val Asn Ile Arg Lys Val Gln Pro Leu Val Asp Met Phe Arg Lys Leu
 485 490 495
 Pro Phe Gln Ala Val Thr Ala Gln Leu Ala Gly Val Lys Cys Asn Gln
 500 505 510
 Trp Ser Glu Glu Ala Ser Met Val Phe Arg Asn His Val Glu Lys Lys
 515 520 525
 Pro Leu Val Ala Leu Val Gln Thr Val Ile Glu Asn Ala Asn Pro Trp
 530 535 540
 Asp Arg Lys Val Val Val Tyr Leu Val Asp Thr Ser Leu Pro Asp Thr
 545 550 555 560
 Asp Thr Trp Ile His Asp Phe Met Ser Glu Tyr Leu Ile Glu Leu Ser
 565 570 575
 Lys Val Asn

<210> 3445
 <211> 2086
 <212> DNA
 <213> Homo sapiens

<400> 3445
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 120
 cctgcatgag agttgggccc cgggcggggg tggagcctac tcggggcgac tgcgatggac
 180
 gccttagaag gagagagctt tgcgctgtct ttctcctccg cctctgatgc agaatttgat
 240
 gctgtggttg gatatttaga ggacattatc atggatgacg agttccagtt attacagaga
 300
 aatttcattg acaagtacta cctggagttt gaagacacag aagagaataa actcatctac
 360
 acacctatct ttaatgaata catttctttg gtagaaaaat acattgaaga acagctgctg
 420
 cagcggattc ctgagttcaa catggcagcc ttcaccacaa cattacacca tctgttccgt
 480
 ttgaggcacc ataaggatga agtggctggg gacatattcg acatgctgct caccttcaca
 540
 gattttctgg cttttaaaga aatgtttttg gactacagag cagaaaaaga aggccgagga
 600
 ctggacttaa gcagtggctt agtggtgact tcattgtgca aatcatcttc tctgccagct
 660
 tccagaaca atctgcggca ctaggtccta cctccagcca atgaatggga tcattctgga
 720

tgtcaccagc ccaataggct cagctcatga tgacagaaca catcttggaa agactgactc
780
tgttatgtaa ctcttcattt atgttaagta ttaataggtc aaaacaaaa tgacctaac
840
ctctggacc tatttatact gaaacacctt cttgtattca ttaaccatag tactctctcc
900
cacctcaagt agacacctct ctcaggagct tctgagtcag acgcctctgg agcgagccct
960
atgttaggca ctccacctgg ggggcccttc cccagcatac ctgctgggtg gtaagtgtgg
1020
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1080
cacctctttt tcacatgggc cacagtttca gtacttcagc ctcagtgggg ttctgatgt
1140
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1200
gtctcggtg taggaatcaa cagaaggaga cgtcctctac ataaaagctc catgtgaaaa
1260
gctactcta gtcttaacat ttgcagtcct tgtgtcactg tcttctgggc ctgatgtagt
1320
ccactggtt ctagaagtct cttttaagca ttatttttga aaaaaaaaaat atttttatag
1380
atgaatactc aggctaacct agtggatgtg atcttggaaac ttccatgatt atccacttaa
1440
agatcaaagt attatatgct gtgtgctttt taggtgtttg ttagtactgt gaaggcaaaa
1500
atgctttcta cattgacatt cattcctatt ttactgggca cctatgaatg tatgctgtgt
1560
gctagaaata gactaaaaca tttcctata gcatgttagt gtgtttgcat gtttgctgaa
1620
aatcctttgt gtataaacca gtttgtaagg ttctctgggt taggtaggga ctctgcagtt
1680
tcttctgtc aaaatctctc ctaccaagat ggtgttccac tgtccagccc agcatgagta
1740
gcaggtagag cacagcttta ctggctgttt gtatgctttg gtttagtgca atgtgtggt
1800
gattacttat cagaaaacat atatgtcatc tctagaacga agaaaaagca tagtagttca
1860
attcccagtg tgtccctttg atttttttt tttaatagta aaaataagaa tctgtactga
1920
cttttcactt ggccattctg gttttaagg acaagctaca agctctgtgt ttctgtactg
1980
atgtgtcact tattaataac tttgtacca tgagtaaac ttcaggtgtt tcgcaagaac
2040
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2086

<210> 3446

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3446

Met Asp Ala Leu Glu Gly Glu Ser Phe Ala Leu Ser Phe Ser Ser Ala


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      1           5           10           15
Ser Asp Ala Glu Phe Asp Ala Val Val Gly Tyr Leu Glu Asp Ile Ile
      20           25           30
Met Asp Asp Glu Phe Gln Leu Leu Gln Arg Asn Phe Met Asp Lys Tyr
      35           40           45
Tyr Leu Glu Phe Glu Asp Thr Glu Glu Asn Lys Leu Ile Tyr Thr Pro
      50           55           60
Ile Phe Asn Glu Tyr Ile Ser Leu Val Glu Lys Tyr Ile Glu Glu Gln
      65           70           75           80
Leu Leu Gln Arg Ile Pro Glu Phe Asn Met Ala Ala Phe Thr Thr Thr
      85           90           95
Leu His His Leu Phe Arg Leu Arg His His Lys Asp Glu Val Ala Gly
      100          105          110
Asp Ile Phe Asp Met Leu Leu Thr Phe Thr Asp Phe Leu Ala Phe Lys
      115          120          125
Glu Met Phe Leu Asp Tyr Arg Ala Glu Lys Glu Gly Arg Gly Leu Asp
      130          135          140
Leu Ser Ser Gly Leu Val Val Thr Ser Leu Cys Lys Ser Ser Ser Leu
      145          150          155          160
Pro Ala Ser Gln Asn Asn Leu Arg His
      165

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<210> 3447

<211> 936

<212> DNA

<213> Homo sapiens

<400> 3447

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120
gggggtgcgt ttgaccgcga gagggcgcg cgctgtggg aagccgtgtc cggtgcccag
180
ccggtgggta gagaggaagt ggagcacatg atccagaaga accaatgtct cttcaccaac
240
acccagtgtg aggtttgctg cgccttgctt atttctgagt ccagaagct ggcacattac
300
cagagcaaaa aacatgccaa caaagtgaag agatacctag caatccatgg aatggagaca
360
ttaaaggggg aaacgaagaa gctagactca gatcagaaga gcagcagaag caaagacaag
420
aaccagtgtc gcccacatctg taacatgacc ttttcctccc ctgtcgtggc ccagtcgcac
480
tacctgggga agaccacgc aaagaactta aagctgaagc agcagtccac taagggtgaa
540
gccttgacc agaatagaga gatgatagac ccagacaagt tctgcagcct ctgccatgca
600
actttcaacg accctgtcat ggctcaacaa cattatgtgg gcaagaaaca cagaaaacag
660
gagaccaagc taaaactaat ggcacgctat gggcggctgg cggaccctgc tgtcactgac
720
ttccagctg gaaagggcta ccctgcaaa acatgtaaga tagtgctgaa ctccatagaa
780

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cagtaccaag ctcatgtcag cggcttcaaa cacaagaacc agtcacaaaa aacagtggca
 840
 tcatccctgg gccagattcc aatgcaaagg caacccattc agaaagactc aaccaccttg
 900
 gaagactaga ggtgattctg cccagcatcc catatt
 936

<210> 3448

<211> 302

<212> PRT

<213> Homo sapiens

<400> 3448

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Val	Gln	Ala	Ala	Asp	Gly	Gly	Ala	Ala	Gly	Pro	Tyr	Ser	Ser	Ser	Glu
			20					25					30		
Leu	Leu	Glu	Gly	Gln	Glu	Pro	Asp	Gly	Val	Arg	Phe	Asp	Arg	Glu	Arg
			35				40					45			
Ala	Arg	Arg	Leu	Trp	Glu	Ala	Val	Ser	Gly	Ala	Gln	Pro	Val	Gly	Arg
			50			55					60				
Glu	Glu	Val	Glu	His	Met	Ile	Gln	Lys	Asn	Gln	Cys	Leu	Phe	Thr	Asn
65					70					75					80
Thr	Gln	Cys	Lys	Val	Cys	Cys	Ala	Leu	Leu	Ile	Ser	Glu	Ser	Gln	Lys
				85					90					95	
Leu	Ala	His	Tyr	Gln	Ser	Lys	Lys	His	Ala	Asn	Lys	Val	Lys	Arg	Tyr
			100					105					110		
Leu	Ala	Ile	His	Gly	Met	Glu	Thr	Leu	Lys	Gly	Glu	Thr	Lys	Lys	Leu
			115				120					125			
Asp	Ser	Asp	Gln	Lys	Ser	Ser	Arg	Ser	Lys	Asp	Lys	Asn	Gln	Cys	Cys
			130			135					140				
Pro	Ile	Cys	Asn	Met	Thr	Phe	Ser	Ser	Pro	Val	Val	Ala	Gln	Ser	His
145					150					155					160
Tyr	Leu	Gly	Lys	Thr	His	Ala	Lys	Asn	Leu	Lys	Leu	Lys	Gln	Gln	Ser
				165				170						175	
Thr	Lys	Val	Glu	Ala	Leu	His	Gln	Asn	Arg	Glu	Met	Ile	Asp	Pro	Asp
			180					185					190		
Lys	Phe	Cys	Ser	Leu	Cys	His	Ala	Thr	Phe	Asn	Asp	Pro	Val	Met	Ala
			195				200					205			
Gln	Gln	His	Tyr	Val	Gly	Lys	Lys	His	Arg	Lys	Gln	Glu	Thr	Lys	Leu
			210			215					220				
Lys	Leu	Met	Ala	Arg	Tyr	Gly	Arg	Leu	Ala	Asp	Pro	Ala	Val	Thr	Asp
225					230					235					240
Phe	Pro	Ala	Gly	Lys	Gly	Tyr	Pro	Cys	Lys	Thr	Cys	Lys	Ile	Val	Leu
				245				250						255	
Asn	Ser	Ile	Glu	Gln	Tyr	Gln	Ala	His	Val	Ser	Gly	Phe	Lys	His	Lys
			260				265						270		
Asn	Gln	Ser	Pro	Lys	Thr	Val	Ala	Ser	Ser	Leu	Gly	Gln	Ile	Pro	Met
			275				280					285			
Gln	Arg	Gln	Pro	Ile	Gln	Lys	Asp	Ser	Thr	Thr	Leu	Glu	Asp		
			290			295					300				

<210> 3449

<211> 877

<212> DNA

<213> Homo sapiens

<400> 3449

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ccccccggcg ccccggtctt gccgctgcac aattcctccg tgactgccaa ctcccagtc
120
ccggcccttc tggccggcac caaccccggt gctgctcgtc cggatggagg cagttgcccc
180
gcacactacc cgggtgcacga gtgctctctt aaggggggat tgaggagact ctctctctc
240
atccgcacgc acaatatcgg gcagaaagat aatcacggaa atactccttt acaccttgct
300
gtgatgttag gaaataaaga atgtgcccat ttacttttgg ctcaaatgc tccagtcaag
360
gtgaaaaatg ctccgggatg gagccctctg gcggaagcca tcagctatgg agataggcag
420
atgattacag ctcttttgag gaagcttaag cagcaatcca gggaaagtgt tgaagaaaa
480
cgacctgat tattaagaag cctgaaagag ctaggtgact tttatctaga acttcaactg
540
gattttcaaa gctgggtgcc ttacttttcc cgaattctgc cttccgatgc atgtaaaata
600
tacaacaag gtatcaatat caggcttgac acaactctca tagactttac tgacatgaag
660
tgccaacgag gggatctaag cttcattttc aatgggggat cggcgccctc tgaatctttt
720
gtagtattag acaatgaaca aaaagtttat cagcgaatac atcatgaggc tcacatccca
780
ggaatcagag atggaaacag aagaagaggt ggatatttta atgagcagtg atatttactc
840
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877

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<210> 3450

<211> 276

<212> PRT

<213> Homo sapiens

<400> 3450

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Xaa Ile Phe Ser Asn His His His Arg Leu Gln Leu Lys Ala Ala Pro
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Ala Ser Ser Asn Pro Pro Gly Ala Pro Ala Leu Pro Leu His Asn Ser
20           25           30
Ser Val Thr Ala Asn Ser Gln Ser Pro Ala Leu Leu Ala Gly Thr Asn
35           40           45
Pro Val Ala Val Val Ala Asp Gly Gly Ser Cys Pro Ala His Tyr Pro
50           55           60
Val His Glu Cys Val Phe Lys Gly Asp Val Arg Arg Leu Ser Ser Leu
65           70           75           80
Ile Arg Thr His Asn Ile Gly Gln Lys Asp Asn His Gly Asn Thr Pro
85           90           95
Leu His Leu Ala Val Met Leu Gly Asn Lys Glu Cys Ala His Leu Leu

```

```

      100      105      110
Leu Ala His Asn Ala Pro Val Lys Val Lys Asn Ala Gln Gly Trp Ser
      115      120      125
Pro Leu Ala Glu Ala Ile Ser Tyr Gly Asp Arg Gln Met Ile Thr Ala
      130      135      140
Leu Leu Arg Lys Leu Lys Gln Gln Ser Arg Glu Ser Val Glu Glu Lys
145      150      155      160
Arg Pro Arg Leu Leu Lys Ala Leu Lys Glu Leu Gly Asp Phe Tyr Leu
      165      170      175
Glu Leu His Trp Asp Phe Gln Ser Trp Val Pro Leu Leu Ser Arg Ile
      180      185      190
Leu Pro Ser Asp Ala Cys Lys Ile Tyr Lys Gln Gly Ile Asn Ile Arg
      195      200      205
Leu Asp Thr Thr Leu Ile Asp Phe Thr Asp Met Lys Cys Gln Arg Gly
      210      215      220
Asp Leu Ser Phe Ile Phe Asn Gly Asp Ala Ala Pro Ser Glu Ser Phe
225      230      235      240
Val Val Leu Asp Asn Glu Gln Lys Val Tyr Gln Arg Ile His His Glu
      245      250      255
Ala His Ile Pro Gly Ile Arg Asp Gly Asn Arg Arg Arg Gly Gly Tyr
      260      265      270
Phe Asn Glu Gln
      275

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<210> 3451

<211> 595

<212> DNA

<213> Homo sapiens

<400> 3451

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120
gaaatattca gtaagtagtg ccctgccatt gcagggttgg atgtccttct gccagcaaaa
180
cccagcatga acctctggct tgtggagatg tcttccagct ggaaacctga gtgagcgaag
240
ttgaactgtg agggcggcac aactgagaga agattctgcc tccgaacct ctgaatgaga
300
gtctgaagga tctgatcttg ggttgcttta cttagtcctt cgtggtattg gtgtgtgtca
360
atgctggagt ccctcagctc cttagctgaa aagagctgaa ggggccttgg aacctggggg
420
agctgcttac tttgcaaggt tttgcccagc tgctgctgcg tagctggatg ggactgtctc
480
tcattaactt cctctctggt gctatcttct gttgtgttgg tagctatgag cgctcccatc
540
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595

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<210> 3452

<211> 192

<212> PRT

<213> Homo sapiens

<400> 3452

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Leu Ile Ala Thr Asn Thr Thr Glu Asn Ser Thr Arg Glu Glu Val Asn
      20           25           30
Glu Arg Gln Ser His Pro Ala Thr Gln Gln Gln Leu Gly Lys Thr Leu
      35           40           45
Gln Ser Lys Gln Leu Pro Gln Val Pro Arg Pro Leu Gln Leu Phe Ser
      50           55           60
Ala Lys Glu Leu Arg Asp Ser Ser Ile Asp Thr His Gln Tyr His Glu
65           70           75           80
Gly Leu Ser Lys Ala Thr Gln Asp Gln Ile Leu Gln Thr Leu Ile Gln
      85           90           95
Arg Val Arg Arg Gln Asn Leu Leu Ser Val Val Pro Pro Ser Gln Phe
      100          105          110
Asn Phe Ala His Ser Gly Phe Gln Leu Glu Asp Ile Ser Thr Ser Gln
      115          120          125
Arg Phe Met Leu Gly Phe Ala Gly Arg Arg Thr Ser Lys Pro Ala Met
      130          135          140
Ala Gly His Tyr Leu Leu Asn Ile Ser Thr Tyr Gly Arg Gly Ser Glu
145          150          155          160
Ser Phe Arg Arg Thr His Ser Val Asn Pro Glu Asp Arg Phe Cys Leu
      165          170          175
Ser Ser Pro Thr Glu Ala Leu Lys Met Gly Tyr Thr Asn Cys Lys Asn
      180          185          190

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<210> 3453

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3453

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120
gcgttagtg atacgctcac cgggataccta tccccagtac aggaggtgcg ggcggtgct
180
gaagaacaga ttaaggtgct ggaggtgacg gaggaatttg gtgttcactt ggcagaactg
240
actgtagatc ccagggggc actggcaatc cgtcagctgg catcagtcac cttgaaacaa
300
tatgtggaga ctactggtg tgcccaatca gagaaattta ggcctcctga aactacagaa
360
agggcaaaaa ttgttatccg ggagctattg cctaattgggt tgagagaatc gataagcaaa
420
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477

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<210> 3454

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3454

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 20 25 30
 Pro Val Ala Gln Gly Leu Lys Glu Ala Leu Val Asp Thr Leu Thr Gly
 35 40 45
 Ile Leu Ser Pro Val Gln Glu Val Arg Ala Ala Ala Glu Glu Gln Ile
 50 55 60
 Lys Val Leu Glu Val Thr Glu Glu Phe Gly Val His Leu Ala Glu Leu
 65 70 75 80
 Thr Val Asp Pro Gln Gly Ala Leu Ala Ile Arg Gln Leu Ala Ser Val
 85 90 95
 Ile Leu Lys Gln Tyr Val Glu Thr His Trp Cys Ala Gln Ser Glu Lys
 100 105 110
 Phe Arg Pro Glu Thr Thr Glu Arg Ala Lys Ile Val Ile Arg Glu
 115 120 125
 Leu Leu Pro Asn Gly Leu Arg Glu Ser Ile Ser Lys Val Arg Ser Ser
 130 135 140
 Val Ala Tyr Ala Val Ser Ala Ile Ala His Trp Asp Trp Pro Glu
 145 150 155

<210> 3455

<211> 4886

<212> DNA

<213> Homo sapiens

<400> 3455

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 120
 cttgtcggag actgagctat tggcagtgcc ttcagctctg agctcaggca cctcgaacat
 180
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 240
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 300
 agcgagaagg cagagatgaa cattctagaa atcaatgaga aattgcgccc ccagttggca
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 480
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 540
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 600
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 660
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 720

gaggggtgta ggctggcaca gcacctcgtc caaaagctca gcccagaaaa tgacaacgat
780
gacgatgaag atgttcaagt tgaggtggct gagaaagtgc agaaatcgtc tgccccagg
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900
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960
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1020
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1200
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<210> 3456

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3456

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Lys	Lys	Gln	Arg	Arg	Gly	Arg	Lys	Glu	Gly	Glu	Glu	Asp	Gln	Asn	
		20					25					30			
Pro	Pro	Cys	Pro	Arg	Leu	Asn	Gly	Val	Leu	Met	Glu	Val	Glu	Glu	Pro
		35					40					45			
Glu	Val	Leu	Gln	Asp	Ser	Leu	Asp	Arg	Cys	Tyr	Ser	Thr	Pro	Ser	Met
		50				55					60				
Tyr	Phe	Glu	Leu	Pro	Asp	Ser	Phe	Gln	His	Tyr	Arg	Ser	Val	Phe	Tyr
65					70					75				80	
Ser	Phe	Glu	Glu	Glu	His	Ile	Ser	Phe	Ala	Leu	Tyr	Val	Asp	Asn	Arg
				85					90					95	
Phe	Phe	Thr	Leu	Thr	Val	Thr	Ser	Leu	His	Leu	Val	Phe	Gln	Met	Gly
			100					105					110		
Val	Ile	Phe	Pro	Gln											

115

<210> 3457
 <211> 646
 <212> DNA
 <213> Homo sapiens

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<210> 3458
 <211> 61
 <212> PRT
 <213> Homo sapiens

<400> 3458
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 Ile Cys Ala Cys Leu Phe Thr His Arg Trp Glu Cys Arg Val Cys Ile
 35 40 45
 Leu Cys Xaa Cys Thr Cys Thr Gln Ala Xaa Ala Gly Lys
 50 55 60

<210> 3459
 <211> 592
 <212> DNA
 <213> Homo sapiens

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 240
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<210> 3460

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3460

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Ser	Gly	Pro	Ala	Arg	Ile	Pro	Val	Leu	Pro	Cys	Ser	Pro	Gln	Leu	Pro
			20					25					30		
Gly	Pro	Ser	Leu	Cys	Ala	Ala	Ser	Val	Cys	Leu	Leu	Gln	Asn	Lys	His
		35					40					45			
His	Ala	Pro	Ser	Trp	Ala	Glu	Ala	Pro	Ala	Asp	Ser	Pro	Arg	Ala	Leu
	50					55				60					
Gln	Ala	Cys	Pro	Val	Leu	Cys	Gln	Ala	Gly	Pro	Gly	His	Val	Pro	Ala
65					70				75					80	
Pro	Gly	Ala	Gly	Leu	Gln	Arg	Gly	Gln	Trp	Ser	Ala	Leu	Lys	Thr	Val
			85					90					95		
Ile	Pro	Ala	Arg	Pro	Ala	Leu	Pro	Cys	Ser	Ala	Arg	Gly	Gln	Phe	Glu
			100					105					110		
Leu	Lys	Leu													
			115												

<210> 3461

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3461

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 360
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 474

<210> 3462

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3462

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Leu	Leu	Gly	Gly	His	Trp	Leu	Arg	Ala	Gln	Gly	Tyr	Ala	Asn	Pro	Phe
		20						25					30		
Trp	Leu	Ala	Leu	Ala	Leu	Leu	Ile	Ala	Met	Thr	Leu	Tyr	Ala	Ala	Phe
		35					40					45			
Cys	Phe	Gly	Glu	Thr	Leu	Lys	Glu	Pro	Lys	Ser	Thr	Arg	Leu	Phe	Thr
	50					55					60				
Phe	Arg	His	His	Arg	Ser	Ile	Val	Gln	Leu	Tyr	Val	Ala	Pro	Ala	Pro
65					70					75				80	
Glu	Lys	Ser	Arg	Lys	His	Leu	Ala	Leu	Tyr	Ser	Leu	Ala	Ile	Phe	Val
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<210> 3463

<211> 1734

<212> DNA

<213> Homo sapiens

<400> 3463

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<210> 3464

<211> 434

<212> PRT

<213> Homo sapiens

<400> 3464

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Leu	Glu	Asp	Pro	Ala	Val	Pro	Arg	Leu	Thr	Ala	Ala	Leu	Pro	Ala	Ala
			20					25					30		
Glu	Leu	Pro	Glu	Arg	Arg	Arg	Arg	Gln	Gln	Arg	Gln	Gly	Lys	His	His

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 50 55 60
 Lys Leu Ser Ile Lys Gly Leu Ile Glu Ser Ala Leu Asn Leu Gly Arg
 65 70 75 80
 Thr Leu Asp Ser Asp Tyr Ala Pro Leu Gln Gln Phe Phe Val Val Met
 85 90 95
 Glu His Cys Leu Lys His Gly Leu Lys Ala Lys Lys Thr Phe Leu Gly
 100 105 110
 Gln Asn Lys Ser Phe Trp Gly Pro Leu Glu Leu Val Glu Lys Leu Val
 115 120 125
 Pro Glu Ala Ala Glu Ile Thr Ala Ser Val Lys Asp Leu Pro Gly Leu
 130 135 140
 Lys Thr Pro Val Gly Arg Gly Arg Ala Trp Leu Arg Leu Ala Leu Met
 145 150 155 160
 Gln Lys Lys Leu Ser Glu Tyr Met Lys Ala Leu Ile Asn Lys Lys Glu
 165 170 175
 Leu Leu Ser Glu Phe Tyr Glu Pro Asn Ala Leu Met Met Glu Glu Glu
 180 185 190
 Gly Ala Ile Ile Ala Gly Leu Leu Val Gly Leu Asn Val Ile Asp Ala
 195 200 205
 Asn Phe Cys Met Lys Gly Glu Asp Leu Asp Ser Gln Val Gly Val Ile
 210 215 220
 Asp Phe Ser Met Tyr Leu Lys Asp Gly Asn Ser Ser Lys Gly Thr Glu
 225 230 235 240
 Gly Asp Gly Gln Ile Thr Ala Ile Leu Asp Gln Lys Asn Tyr Val Glu
 245 250 255
 Glu Leu Asn Arg His Leu Asn Ala Thr Val Asn Asn Leu Gln Ala Lys
 260 265 270
 Val Asp Ala Leu Glu Lys Ser Asn Thr Lys Leu Thr Glu Glu Leu Ala
 275 280 285
 Val Ala Asn Asn Arg Ile Ile Thr Leu Gln Glu Glu Met Glu Arg Val
 290 295 300
 Lys Glu Glu Ser Ser Tyr Ile Leu Glu Ser Asn Arg Lys Gly Pro Lys
 305 310 315 320
 Gln Asp Arg Thr Ala Glu Gly Gln Ala Leu Ser Glu Ala Arg Lys His
 325 330 335
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 340 345 350
 Met Gln Ile Ser Met Arg Gln Glu Met Glu Leu Ala Met Lys Met Leu
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 Glu Lys Asp Val Cys Glu Lys Gln Asp Ala Leu Val Ser Leu Arg Gln
 370 375 380
 Gln Leu Asp Asp Leu Arg Ala Leu Lys His Glu Leu Ala Phe Lys Leu
 385 390 395 400
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<210> 3465

<211> 2904

<212> DNA

<213> Homo sapiens

<400> 3465

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<210> 3466

<211> 315

<212> PRT

<213> Homo sapiens

<400> 3466

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Gly Arg His Arg Lys Leu Pro Glu Asn Trp Thr Asp Thr Arg Glu Thr
          35           40           45
Leu Leu Glu Gly Met Leu Phe Ser Leu Lys Tyr Leu Gly Met Thr Leu
          50           55           60
Val Glu Gln Pro Lys Gly Glu Glu Leu Ser Ala Ala Ile Lys Arg
          65           70           75           80
Ile Val Ala Thr Ala Lys Ala Ser Gly Lys Lys Leu Gln Lys Val Thr
          85           90           95
Leu Lys Val Ser Pro Arg Gly Ile Ile Leu Thr Asp Asn Leu Thr Asn
          100          105          110
Gln Leu Ile Glu Asn Val Ser Ile Tyr Arg Ile Ser Tyr Cys Thr Ala
          115          120          125
Asp Lys Met His Asp Lys Val Phe Ala Tyr Ile Ala Gln Ser Gln His
          130          135          140
Asn Gln Ser Leu Glu Cys His Ala Phe Leu Cys Thr Lys Arg Lys Met
          145          150          155          160
Ala Gln Ala Val Thr Leu Thr Val Ala Gln Ala Phe Lys Val Ala Phe
          165          170          175
Glu Phe Trp Gln Val Ser Lys Glu Glu Lys Glu Lys Arg Asp Lys Ala
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Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Asp Cys Thr Pro
          195          200          205
Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu Glu Glu
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Thr Ala Lys Ala Pro Leu Ser Thr Val Ser Ala Asn Thr Thr Asn Met
          225          230          235          240
Asp Glu Val Pro Arg Pro Gln Ala Leu Ser Gly Ser Ser Val Val Trp
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Glu Leu Asp Asp Gly Leu Asp Glu Ala Phe Ser Arg Leu Ala Gln Ser
          260          265          270
Arg Thr Asn Pro Gln Val Leu Asp Thr Gly Leu Thr Ala Gln Asp Met
          275          280          285
His Tyr Ala Gln Cys Leu Ser Pro Val Asp Trp Asp Lys Pro Asp Ser
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<210> 3467

<211> 638

<212> DNA

<213> Homo sapiens

<400> 3467

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180

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<210> 3468

<211> 88

<212> PRT

<213> Homo sapiens

<400> 3468

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Tyr	Asp	Phe	Pro	Pro	Leu	Cys	Met	Ser	Gly	Leu	His	Asp	Phe	Gln	Phe
			20					25					30		
Trp	Leu	Cys	Tyr	Thr	Ser	Cys	Tyr	Gln	Gln	Asn	Arg	Val	Ser	Leu	Gly
		35				40						45			
Gln	Ser	Cys	Gly	Tyr	Thr	Ser	Val	Ser	Gln	Asp	Phe	Leu	Cys	Gln	Arg
	50					55				60					
Ala	Val	Lys	Leu	Arg	Thr	Lys	Val	Ile	Lys	Ile	Gln	Leu	Tyr	Tyr	Trp
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Ile	Val	Leu	Asp	Cys	Phe	Ser	Ser								
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<210> 3469

<211> 1710

<212> DNA

<213> Homo sapiens

<400> 3469

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 360

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<210> 3470

<211> 322

<212> PRT

<213> Homo sapiens

<400> 3470

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      20           25           30
Pro Asp Glu Asp Leu Ser His Arg Asn Lys Glu Pro Pro Ala Pro Ala
      35           40           45
Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
      50           55           60
Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr Asn Lys
65           70           75           80
Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala Phe Val
      85           90           95
Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys Thr Phe
      100          105          110
Phe Ile Ala Ala Ile Met Ala Met Arg Tyr Asn Arg Leu Thr Val Leu
      115          120          125
Ala Gly Ala Met Leu Ala Leu Gly Leu Met Thr Cys Leu Ser Val Leu
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Phe Gly Tyr Ala Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr Tyr Val
145          150          155          160
Ser Thr Val Leu Phe Ala Ile Phe Gly Ile Arg Met Leu Arg Glu Gly
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Leu Lys Met Ser Pro Asp Glu Gly Gln Glu Glu Leu Glu Glu Val Gln
      180          185          190
Ala Glu Leu Lys Lys Lys Asp Glu Glu Phe Gln Arg Thr Lys Leu Leu
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Asn Gly Pro Gly Asp Val Glu Thr Gly Thr Ser Ile Thr Val Pro Gln
      210          215          220
Lys Lys Trp Leu His Phe Ile Ser Pro Ile Phe Val Gln Ala Leu Thr
225          230          235          240
Leu Thr Phe Leu Ala Glu Trp Gly Asp Arg Ser Gln Leu Thr Thr Ile
      245          250          255
Val Leu Ala Ala Arg Glu Asp Pro Tyr Gly Val Ala Val Gly Gly Thr
      260          265          270
Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly Arg Met
      275          280          285
Ile Ala Gln Lys Ile Ser Val Arg Thr Val Thr Ile Ile Gly Gly Ile
      290          295          300
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<210> 3471

<211> 2335

<212> DNA

<213> Homo sapiens

<400> 3471

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<210> 3472

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3472

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Val	Val	Ala	Thr	Ala	Asp	Gly	Ser	Ser	Ala	Ser	Pro	Val	Gln	Phe	Tyr
			20					25					30		
Lys	Val	Cys	Val	Ser	Val	Val	Ser	Glu	Lys	Cys	Arg	Ile	Asp	Thr	Glu
		35					40					45			
Ile	Leu	Pro	Ser	Leu	Phe	Met	Arg	Cys	Thr	Thr	Asp	Leu	Asn	Arg	Lys
	50					55					60				
Asp	Lys	Phe	Pro	Ala	Ile	Thr	His	Leu	Lys	Phe	Leu	Ala	Arg	Asp	Met
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Ser	Glu	Gln	Val	Leu	Leu	Cys	Ala	Ser	Ser	Gln	Thr	Ser	Ser	Ile	Val
				85					90					95	
Glu	Cys	Trp	Ser	Leu	Arg	Lys	Glu	Gly	Leu	Pro	Val	Asn	Asn	Ile	Phe
			100					105					110		
Gln	Gln	Ile	Ser	Pro	Val	Val	Gly	Asp	Lys	Gln	Pro	Thr	Ile	Leu	Lys
		115					120					125			
Trp	Arg	Ile	Leu	Ser	Ala	Thr	Asn	Asp	Leu	Asp	Arg	Val	Ser	Ala	Val
	130					135					140				
Ala	Leu	Pro	Lys	Leu	Pro	Ile	Ser	Leu	Thr	Asn	Thr	Asp	Leu	Lys	Val
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Ala	Ser	Asp	Thr	Gln	Phe	Tyr	Pro	Gly	Leu	Gly	Leu	Ala	Leu	Ala	Phe
				165					170					175	
His	Asp	Gly	Ser	Val	His	Ile	Val	His	Arg	Leu	Ser	Leu	Gln	Thr	Met
		180					185					190			
Ala	Val	Phe	Tyr	Ser	Ser	Ala	Ala	Pro	Arg	Pro	Val	Asp	Glu	Pro	Ala
	195						200					205			
Met	Lys	Arg	Pro	Arg	Thr	Ala	Gly	Pro	Ala	Val	His	Leu	Lys	Ala	Met
	210					215					220				
Gln	Leu	Ser	Trp	Thr	Ser	Leu	Ala	Leu	Val	Gly	Ile	Asp	Ser	His	Gly

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 Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln Pro Ser
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 Ala Ser Leu Cys Lys Leu Ser Pro Cys Thr Val Thr Arg Val Cys Asp
 325 330 335
 Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu Lys Ser
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 370 375 380
 Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met Asn Thr
 385 390 395 400
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 Tyr Leu Leu Ala Ser Leu Pro Asn Gln Gly Ser Leu Leu Arg Pro Gly
 420 425 430
 His Ser Phe Leu Arg Asp Gly Thr Ser Leu Gly Met Leu Arg Glu Leu
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 Met Val Val Ile Arg Ile Trp Gly Leu Leu Lys Pro Ser Cys Leu Pro
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 Val Tyr Thr Ala Thr Ser Asp Thr Gln Asp Ser Met Ser Leu Leu Phe
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 Arg Leu Leu Thr Lys Leu Trp Ile Cys Cys Arg Asp Glu Gly Pro Ala
 485 490 495
 Ser Glu Pro Asp Glu Ala Leu Val Asp Glu Cys Cys Leu Leu Pro Ser
 500 505 510
 Gln Leu Leu Ile Pro Ser Leu Asp Trp Leu Pro Ala Ser Asp Gly Leu
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 Ala Arg Ala Pro Gly Gln Pro Lys Ile Asp His Leu Arg Arg Leu His
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 Leu Gly Ala Cys Pro Thr Glu Glu Cys Lys Ala Cys Thr Arg Cys Gly
 580 585 590
 Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val Lys Gln
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<210> 3473

<211> 1660

<212> DNA

<213> Homo sapiens

<400> 3473

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<210> 3474

<211> 474

<212> PRT

<213> Homo sapiens

<400> 3474

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Lys	Cys	Tyr	Glu	Ser	Ser	Cys	Cys	Gln	Ser	Ser	Glu	Asp	Glu	Val	Glu	35	40	45	
Ile	Leu	Gly	Pro	Phe	Pro	Ala	Gln	Thr	Pro	Pro	Trp	Leu	Met	Ala	Ser	50	55	60	
Arg	Ser	Ser	Asp	Lys	Asp	Gly	Asp	Ser	Val	His	Thr	Ala	Ser	Glu	Val	65	70	75	80
Pro	Leu	Thr	Pro	Arg	Thr	Asn	Ser	Pro	Asp	Gly	Arg	Arg	Ser	Ser	Ser	85	90	95	
Asp	Thr	Ser	Lys	Ser	Thr	Tyr	Ser	Leu	Thr	Arg	Arg	Ile	Ser	Ser	Leu	100	105	110	
Glu	Ser	Arg	Arg	Pro	Ser	Ser	Pro	Leu	Ile	Asp	Ile	Lys	Pro	Ile	Glu	115	120	125	
Phe	Gly	Val	Leu	Ser	Ala	Lys	Lys	Glu	Pro	Ile	Gln	Pro	Ser	Val	Leu	130	135	140	
Arg	Arg	Thr	Tyr	Asn	Pro	Asp	Asp	Tyr	Phe	Arg	Lys	Phe	Glu	Pro	His	145	150	155	160
Leu	Tyr	Ser	Leu	Asp	Ser	Asn	Ser	Asp	Asp	Val	Asp	Ser	Leu	Thr	Asp	165	170	175	
Glu	Glu	Ile	Leu	Ser	Lys	Tyr	Gln	Leu	Gly	Met	Leu	His	Phe	Ser	Thr	180	185	190	
Gln	Tyr	Asp	Leu	Leu	His	Asn	His	Leu	Thr	Val	Arg	Val	Ile	Glu	Ala	195	200	205	
Arg	Asp	Leu	Pro	Pro	Pro	Ile	Ser	His	Asp	Gly	Ser	Arg	Gln	Asp	Met	210	215	220	
Ala	His	Ser	Asn	Pro	Tyr	Val	Lys	Ile	Cys	Leu	Leu	Pro	Asp	Gln	Lys	225	230	235	240
Asn	Ser	Lys	Gln	Thr	Gly	Val	Lys	Arg	Lys	Thr	Gln	Lys	Pro	Val	Phe	245	250	255	
Glu	Glu	Arg	Tyr	Thr	Phe	Glu	Ile	Pro	Phe	Leu	Glu	Ala	Gln	Arg	Arg	260	265	270	
Thr	Leu	Leu	Leu	Thr	Val	Val	Asp	Phe	Asp	Lys	Phe	Ser	Arg	His	Cys	275	280	285	
Val	Ile	Gly	Lys	Val	Ser	Val	Pro	Leu	Cys	Glu	Val	Asp	Leu	Val	Lys	290	295	300	
Gly	Gly	His	Trp	Trp	Lys	Ala	Leu	Ile	Pro	Ser	Ser	Gln	Asn	Glu	Val	305	310	315	320
Glu	Leu	Gly	Glu	Leu	Leu	Leu	Ser	Leu	Asn	Tyr	Leu	Pro	Ser	Ala	Gly				

[illegible]

<210> 3475

<211> 514

<212> DNA

<213> Homo sapiens

<400> 3475

acgcgtcttg agggtcgggt cttctgcacg cccgcccga agctgctctg gctggtgctg
60
cagcccttct tctactcact acggccgctc tgcgtccacc ccaaggccgt gaccgcgatg
120
gaggtgctca acacgctggt gcagctggcg gccgacctgg ccatctttgc cctttggggg
180
ctcaagcccg tgggtctacct gctggccagc tccttcctgg gcctgggcct gcaccccatc
240
tcggggcact tcgtggccga gcactacatg ttctcaagg gccacgagac ctactcctac
300
tatgggcctc tcaactggat caccttcaat gtgggctacc acgtggagca ccacgacttc
360
cccagcatcc cgggctacaa cctgccgctg gtgcggaaga tcgcgccga gtactacgac
420
cacctgccgc agcaccactc ctgggtgaag gtgctctggg attttgtgtt tgaggactcc
480
ctggggccct atgccagggt gaagcgggtg taca
514

<210> 3476

<211> 171

<212> PRT

<213> Homo sapiens

<400> 3476

Thr	Arg	Leu	Glu	Gly	Trp	Phe	Phe	Cys	Thr	Pro	Ala	Arg	Lys	Leu	Leu
1				5					10					15	
Trp	Leu	Val	Leu	Gln	Pro	Phe	Phe	Tyr	Ser	Leu	Arg	Pro	Leu	Cys	Val

```

                20                25                30
His Pro Lys Ala Val Thr Arg Met Glu Val Leu Asn Thr Leu Val Gln
                35                40                45
Leu Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro Val
                50                55                60
Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro Ile
65                70                75                80
Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His Glu
                85                90                95
Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val Gly
                100                105                110
Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn Leu
                115                120                125
Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro Gln
                130                135                140
His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp Ser
145                150                155                160
Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr
                165                170

```

<210> 3477

<211> 356

<212> DNA

<213> Homo sapiens

<400> 3477

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gcgcgcctcg gctgcctgcc cggcggtctc cgggtcctcg tccagaccgg ccaccggagc
60
ttgacctctt gcatcgaccc ttccatggga cttaatgaag agcagaaaga atttcaaaaa
120
gtggcctttg actttgtgc cggagagatg gctccaaata tggcagagtg ggaccagaag
180
gtaggcggtt ttcttgtgct tagacgttct aacaacagat gtctcaggca gacctttatc
240
tttgtctccc gataatgtaa ttgttaaag tctctccac ttaccaactc ttactgcaag
300
tgagaatacc ggtagtggat gatttttctt agaaggcatc ctgatcatct tgtaca
356

```

<210> 3478

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3478

```

Met Ile Arg Met Pro Ser Arg Lys Asn His Pro Leu Pro Val Phe Ser
1                5                10                15
Leu Ala Val Arg Val Gly Lys Trp Arg Arg His Leu Thr Ile Thr Leu
                20                25                30
Ser Gly Asp Lys Asp Lys Gly Leu Pro Glu Thr Ser Val Val Arg Thr
                35                40                45
Ser Lys His Lys Lys Asn Ala Tyr Leu Leu Val Pro Leu Cys His Ile
50                55                60
Trp Ser His Leu Ser Gly Ser Lys Val Lys Gly His Phe Leu Lys Phe

```

```

65              70              75              80
Phe Leu Leu Phe Ile Lys Ser His Gly Arg Val Asp Ala Gly Gly Gln
              85              90              95
Ala Pro Val Ala Gly Leu Asp Glu Asp Pro Glu Thr Ala Gly Gln Ala
              100              105              110
Ala Glu Ala Arg
              115

```

<210> 3479

<211> 797

<212> DNA

<213> Homo sapiens

<400> 3479

```

nctttccaac ccagcctgaa ggggaaagcc acctcggagg acaccctcaa tctaaggaga
60
taccctggct ctgacaggat catgctgcag aagtggcaga aaagggacat cagcaatttt
120
gagtatctca tgtacctcaa caccgctggc gggagaacct gcaatgacta catgcagtac
180
ccagtgttcc cctgggtcct cgcagactac acctcagaga cattgaactt ggcaaatccg
240
aagattttcc gggatctttc aaagcccatg ggggctcaga ccaaggaaag gaagctgaaa
300
tttatccaga ggtttaaaga agttgagaaa actgaaggag acatgactgc ccagtgccac
360
tactacaccc actactcctc ggccatcctc gtggcctcct acctgggtccg gatgccaccc
420
ttcaccagg ccttctgcgc tctgcagggt agctgctgcc actctctgta cacacacaca
480
cacacacaca cacacacata cgctgtatc acaagactaa gacctgtgct tgaacaaaga
540
caggatgcct ctgctaaaaa cttagtcatt agccagtgat tcccagttga cattggctcc
600
aggattctgg ctcaccagcc aaggcaggct gttcttctc agttacacct gcacatctgc
660
ccaacaaagt cttgcaaaat gattctaaaa aataagaaat gagacatgaa aaaaatgatt
720
taacataaat aagatttagt ggaaaaagaa aaagcaggaa acttgagagac tagaaaggca
780
ggcgggtcaag gattaga
797

```

<210> 3480

<211> 192

<212> PRT

<213> Homo sapiens

<400> 3480

```

Xaa Phe Gln Pro Ser Leu Lys Gly Lys Ala Thr Ser Glu Asp Thr Leu
1              5              10              15
Asn Leu Arg Arg Tyr Pro Gly Ser Asp Arg Ile Met Leu Gln Lys Trp
              20              25              30
Gln Lys Arg Asp Ile Ser Asn Phe Glu Tyr Leu Met Tyr Leu Asn Thr

```

35					40					45					
Ala	Ala	Gly	Arg	Thr	Cys	Asn	Asp	Tyr	Met	Gln	Tyr	Pro	Val	Phe	Pro
50					55					60					
Trp	Val	Leu	Ala	Asp	Tyr	Thr	Ser	Glu	Thr	Leu	Asn	Leu	Ala	Asn	Pro
65	70					75					80				
Lys	Ile	Phe	Arg	Asp	Leu	Ser	Lys	Pro	Met	Gly	Ala	Gln	Thr	Lys	Glu
85					90					95					
Arg	Lys	Leu	Lys	Phe	Ile	Gln	Arg	Phe	Lys	Glu	Val	Glu	Lys	Thr	Glu
100					105					110					
Gly	Asp	Met	Thr	Ala	Gln	Cys	His	Tyr	Tyr	Thr	His	Tyr	Ser	Ser	Ala
115					120					125					
Ile	Ile	Val	Ala	Ser	Tyr	Leu	Val	Arg	Met	Pro	Pro	Phe	Thr	Gln	Ala
130					135					140					
Phe	Cys	Ala	Leu	Gln	Val	Ser	Cys	Cys	His	Ser	Leu	Tyr	Thr	His	Thr
145	150					155					160				
His	Thr	His	Thr	His	Thr	Tyr	Ala	Cys	Ile	Thr	Arg	Leu	Arg	Pro	Val
165					170					175					
Leu	Glu	Gln	Arg	Gln	Asp	Ala	Ser	Ala	Lys	Asn	Leu	Val	Ile	Ser	Gln
180					185					190					

<210> 3481

<211> 1794

<212> DNA

<213> Homo sapiens

<400> 3481

nncaacgtgg	tcaccacctc	acgaactata	agaagcgtgt	ggcagccttg	gaagccacgc
60	aaaagcccag	cacttcccag	agccagggac	tgacacaaca	gaaagtctgc
120	atgaggtcct	gaccagaggg	tcttctgcca	atgcctccaa	gtggtcacca
180	gcagaccctg	cggtgctggg	agccaccatg	gagagtaggt	gctacggctg
240	ttcacctct	tcaagaagga	gtacggctgt	aagaattgtg	gcaggngctt
300	tgctaagct	tcagtgcagc	agtgcctcgg	actgggaaca	cccaacagaa
360	caatgccatg	aggtcctgac	cagaggggtct	tctgccaatg	cctccaagtg
420	cagaactata	agaagcgtgt	ggcagccttg	gaagccaagc	aaaagcccag
480	agccagggac	tgacacgaca	agaccagatg	attgctgagc	gcctagcacg
540	gagaacaagc	ccaagttagt	cccctcacag	gcagagatag	aggcacggct
600	aaggatgaac	gtcagggttc	catcccttcc	accagggaaa	tggaggcacg
660	ttgcagggca	gagttctacc	ttctcaaacc	cccagcccg	gcacatcaca
720	caggacccaa	gcccagcaga	cacaggatct	gctaacgcag	ctggcagctg
780	cgatgaaagc	tggaaaggag	gaggcccagc	tgccctcttc	cagaatgata
840					tcaaccaggg

tggcccaggg agcactaatt ccaagaggca ggccacttgg ttcttggaga aggagaagag
 900
 cagactgctg gctgaggcag cacttgagtt gcgggaggag aacacgaggc aggaacggat
 960
 tctggccctg gccaaagcgac tagccatgct gcggggacag gaccccgaga gagtgaccct
 1020
 ccaggactat cgcctcccag acagtgatga cgacgaggat gaggagacag ccatccaaag
 1080
 agtcctgcag cagctcactg aagaagcttc cctggatgag gcaagtggct ttaacatccc
 1140
 tgcagagcag gcttctcgac cctggacgca accccgcggg gcagagcctg agggccagga
 1200
 tgtggacccc aggcctgagg ctgaggaaga ggagctcccc tgggtgctgca tctgcaatga
 1260
 ggatgccacc ctacgctgcg ctggctgcga tggggacctc ttctgtgccc gctgcttccg
 1320
 agagggccat gatgcctttg agcttaaaga gcaccagaca tctgcctact ctctccacg
 1380
 tgcaggccaa gagcactgaa gacaccctgg tcctcccga agggcagtc caccaggcagc
 1440
 ggcacccatt tctgggcccc gccacaggac gtccgatggg agagcttgct tggctctact
 1500
 gatgatggat agggcccttc ctgagccttg gtgtccctgg aatgaggaaa gattctccat
 1560
 tcgagagaat gactggggagg gaagaagtcg gggccctcct attagaagcc cagactggaa
 1620
 gtgagaggca tgatggggag agaccagact gaatctacgg gtgagccctg taacctggct
 1680
 ctagggcaca ggccctccc ctggcactta gtgggtctaa taaagtatgt tgattcattg
 1740
 ggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa
 1794

<210> 3482

<211> 206

<212> PRT

<213> Homo sapiens

<400> 3482

Met	Pro	Pro	Ser	Gly	His	His	Leu	Ser	Ser	Ala	Asp	Pro	Ala	Val	Leu
1				5				10						15	
Gly	Ala	Thr	Met	Glu	Ser	Arg	Cys	Tyr	Gly	Cys	Ala	Val	Lys	Phe	Thr
			20					25					30		
Leu	Phe	Lys	Lys	Glu	Tyr	Gly	Cys	Lys	Asn	Cys	Gly	Arg	Xaa	Phe	Cys
		35					40					45			
Ser	Gly	Cys	Leu	Ser	Phe	Ser	Ala	Ala	Val	Pro	Arg	Thr	Gly	Asn	Thr
		50				55				60					
Gln	Gln	Lys	Val	Cys	Lys	Gln	Cys	His	Glu	Val	Leu	Thr	Arg	Gly	Ser
65					70					75				80	
Ser	Ala	Asn	Ala	Ser	Lys	Trp	Ser	Pro	Pro	Gln	Asn	Tyr	Lys	Lys	Arg
			85					90						95	
Val	Ala	Ala	Leu	Glu	Ala	Lys	Gln	Lys	Pro	Ser	Thr	Ser	Gln	Ser	Gln
			100					105					110		
Gly	Leu	Thr	Arg	Gln	Asp	Gln	Met	Ile	Ala	Glu	Arg	Leu	Ala	Arg	Leu

```

      115              120              125
Arg  Gln  Glu  Asn  Lys  Pro  Lys  Leu  Val  Pro  Ser  Gln  Ala  Glu  Ile  Glu
      130              135              140
Ala  Arg  Leu  Ala  Ala  Leu  Lys  Asp  Glu  Arg  Gln  Gly  Ser  Ile  Pro  Ser
145              150              155              160
Thr  Gln  Glu  Met  Glu  Ala  Arg  Leu  Ala  Ala  Leu  Gln  Gly  Arg  Val  Leu
      165              170              175
Pro  Ser  Gln  Thr  Pro  Gln  Pro  Gly  Thr  Ser  His  Thr  Gly  His  Gln  Asp
      180              185              190
Pro  Ser  Pro  Ala  Asp  Thr  Gly  Ser  Ala  Asn  Ala  Ala  Gly  Ser
      195              200              205

```

<210> 3483

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3483

```

ncggccgcgg cgcggaacgg cgctcccgcc cccaccatgg gcaacagcgc gagccgcaac
60
gacttcgagt gggctctacac cgaccagccg cacacgcagc ggcgcaagga gatactggcc
120
aagtaccggg ccatcaaggc cctgatgcgg ccagaccggc gcctcaagtg ggcggggctg
180
gtgctggtgc tgggtgcagat gctggcctgc tggctggtgc ggggctggc ctggcgctgg
240
ctgctgttct gggcctacgc ctttggtggc tgcgtgaacc actcgctgac gctggccatc
300
cacgacatct cgcaaacgc ggccttcggc acggggccgtg cggcacgcaa ccgctggctg
360
gccgtgttcg ccaacctgcc cgtgggtgtg ccctacgccg cctccttcaa gaagtaccac
420
gtggaccacc accgctacct gggcggcgac ggactggacg tggacgtgcc cacgcgt
477

```

<210> 3484

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3484

```

Met  Gly  Asn  Ser  Ala  Ser  Arg  Asn  Asp  Phe  Glu  Trp  Val  Tyr  Thr  Asp
1      5      10      15
Gln  Pro  His  Thr  Gln  Arg  Arg  Lys  Glu  Ile  Leu  Ala  Lys  Tyr  Pro  Ala
20     25     30
Ile  Lys  Ala  Leu  Met  Arg  Pro  Asp  Pro  Arg  Leu  Lys  Trp  Ala  Gly  Leu
35     40     45
Val  Leu  Val  Leu  Val  Gln  Met  Leu  Ala  Cys  Trp  Leu  Val  Arg  Gly  Leu
50     55     60
Ala  Trp  Arg  Trp  Leu  Leu  Phe  Trp  Ala  Tyr  Ala  Phe  Gly  Gly  Cys  Val
65     70     75     80
Asn  His  Ser  Leu  Thr  Leu  Ala  Ile  His  Asp  Ile  Ser  His  Asn  Ala  Ala
85     90     95
Phe  Gly  Thr  Gly  Arg  Ala  Ala  Arg  Asn  Arg  Trp  Leu  Ala  Val  Phe  Ala

```

[illegible]

```
<210> 3485
<211> 812
<212> DNA
<213> Homo sapiens
```

```

<400> 3485
tattttattta tagtcacaaa aactgttcag gaagaaatgt tatgaaaaga acatttttac
60
tgcattgctta aaacatttaa ttttctatta tacagttaaa catttgcttg aattcagtga
120
gtctaaaaaaa tcttattggt ctcagggttag cagttagttg agcagagtcc attggtgaag
180
caatctagtt attggcaaatt tctaacacat ggtaagggtgt gggggaaagg atttaaaata
240
acagaaaaaat gtaagtacaa acatacataa cagcaaaaata aaactcactt taacaaaaaat
300
ttatttaaaaa tgttaccccc atatttcctc aatgaccaac ttgtttcagt tttatctccc
360
cctcatccgg ttatttttatg tctttttggg aggaagggag atgaggggtt ttgtttttta
420
acaaaatcac tggcttttta aaaagtgtta ctgcagtcatt ttataagatg catgttatgt
480
ggaagtgata cctgagttgt ttgcatgggc aatggaagag gcagcagctc tgaaaggagt
540
atgagtcagc aaaaaaatcc ttcaggaacc ttcaagattg aagaaagaac ttcttttaac
600
attaagagacc aagtattatt ggccagagtc tcttctgaga ttgtgagttt ttcattaact
660
ccttgtgtaa aagtcagtaa aatatcaatg atatcattct gaattttctg ttcatacta
720
tccaaacgac ctgagagggg gatagagcac aggagcatat gtaaagtaac aagcgctgaa
780
ggaacacgca tgtccttaaa ctcaaaggat cc
812

```

```
<210> 3486
<211> 117
<212> PRT
<213> Homo sapiens
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```

<400> 3486
Met Arg Val Pro Ser Ala Leu Val Thr Leu His Met Leu Leu Cys Ser
 1              5              10              15
Ile Pro Leu Ser Gly Arg Leu Asp Ser Asp Glu Gln Lys Ile Gln Asn
      20              25              30
Asp Ile Ile Asp Ile Leu Leu Thr Phe Thr Gln Gly Val Asn Glu Lys

```


35					40					45						
Leu	Thr	Ile	Ser	Glu	Glu	Thr	Leu	Ala	Asn	Asn	Thr	Trp	Ser	Leu	Met	
50					55					60						
Leu	Lys	Glu	Val	Leu	Ser	Ser	Ile	Leu	Lys	Val	Pro	Glu	Gly	Phe	Phe	
65					70					75					80	
Ser	Gly	Leu	Ile	Leu	Leu	Ser	Glu	Leu	Leu	Pro	Leu	Pro	Leu	Pro	Met	
85					90					95						
Gln	Thr	Thr	Gln	Val	Ser	Leu	Pro	His	Asn	Met	His	Leu	Ile	Asn	Asp	
100					105					110						
Cys	Ser	Asn	Thr	Phe												
115																

```
<210> 3487
<211> 772
<212> DNA
<213> Homo sapiens
```

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<400> 3487
nnattgtatc aaaatcctag atttgaataa cttattatct taaataatca gtaactaaaa
60
ccaagcaatc catcacacaa agaggggaaa gggtaatat ctgagttata aattttttac
120
cctgtctgat aaaaatagaa gcctgaaagt tttaaattttt cctggattta aatttaaaga
180
taaatttggt tttcagtgaa atatcctcaa tagcaatttt accaaagagg ccttcttctg
240
aaggccacct ctgaaataat tagaggataa atgtcaatgg catgatatta agatattact
300
tgggccaggcg tggtcgtcac gcgtgtaatc ccagcacttt gggaggccga ggcagggtgga
360
tcacgaggtc aagaaatcga gaccagcctg gctaacacag tgaaaccccg tctcattctg
420
agcttcttga caccttttaa tccagtcact gaaattagca tctgcaccta gaaagaaaaa
480
actgactata acatcactca tctgcacaac ctattaatca gcaaatactt actgaatacc
540
tactacatcc caggcagtggt tctaggcact ggggagtcgg cagcgaacaa aacctgtctt
600
aacagacctt atcaccaact ctactatagt tataaacata ccaatagttt aacatttagt
660
tgттаатсат гааасатттт гаттттттаа аааттттаас тасagtcaac ctтаатттса
720
сagatacaaa таатсtgcat ttcccccaat cccgctgctc ttagagaagc tt
772

```

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<210> 3488
<211> 59
<212> PRT
<213> Homo sapiens
```

```

<400> 3488
Asp Ile Thr Trp Pro Gly Val Val Val Thr Arg Val Ile Pro Ala Leu
 1             5             10            15
Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu Ile Glu Thr Ser

```

```

                20                25                30
Leu Ala Asn Thr Val Lys Pro Arg Leu Ile Leu Ser Phe Leu Thr Pro
                35                40                45
Phe Asn Pro Val Thr Glu Ile Ser Ile Cys Thr
                50                55

```

<210> 3489
 <211> 288
 <212> DNA
 <213> Homo sapiens

```

<400> 3489
tagctaacac tccactatgg gagcccatct cctcccaggg ccagggagac cagggagacc
60
agggagacca ggtctggccc ccaactctaa ggctcatctt agaggcgaga ttcaggccca
120
gcccagggtg ccccatgagg cctgggtggtt ggaggcagag ggtatccctt gcccaaattc
180
gtgccacatt cacagtcact gggaaagcta cggggatggg ccgggcgcgg tggctcacac
240
ctgtaatccc agcactttgg agagccccaa gacgacggat cacgagtc
288

```

<210> 3490
 <211> 90
 <212> PRT
 <213> Homo sapiens

```

<400> 3490
Met Gly Ala His Leu Leu Pro Gly Pro Gly Arg Pro Gly Arg Pro Gly
1          5          10          15
Arg Pro Gly Leu Ala Pro Asn Ser Lys Ala His Leu Arg Gly Glu Ile
20          25          30
Gln Ala Gln Pro Arg Val Pro His Glu Ala Trp Trp Leu Glu Ala Glu
35          40          45
Gly Ile Pro Cys Pro Asn Ser Cys His Ile His Ser His Trp Glu Ser
50          55          60
Tyr Gly Asp Gly Pro Gly Ala Val Ala His Thr Cys Asn Pro Ser Thr
65          70          75          80
Leu Glu Ser Pro Lys Thr Thr Asp His Glu
85          90

```

<210> 3491
 <211> 568
 <212> DNA
 <213> Homo sapiens

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<400> 3491
gggaaccgac gtccctctgt ggtgaaattc cacccttca cgccgtgcat cgccgtagcc
60
gacaaggaca gcatctgctt ttgggactgg gagaaagggg agaagctgga ttatttccac
120
aatgggaacc ctcggtacac gagggtcact gccatggagt atctgaatgg ccaggactgc
180

```

tcgcttctgc tgacggccac agacgatggg gccatcaggg tctggaagaa ttttgcgtgat
 240
 ttggaaaaga acccagagat ggtgaccgcg tggcaggggc tctcggacat gctgccaacg
 300
 acgcgaggag ctgggatggg ggtggactgg gagcaggaga ccggcctcct catgagctca
 360
 ggagacgtgc ggatcgtecg gatctgggac acagaccgtg agatgaaggt gcaggacatc
 420
 cctacggggc cagacagctg tgtgacgagt ctgtcctgtg attcccaccg ctcactcatc
 480
 gtggctggcc tcggtgacgg ctccatccgc gtctacgaca gaaggatggc actcagcgaa
 540
 tgccgcgtca tgacgtaccg ggagcaca
 568

<210> 3492

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3492

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			20					25					30		
Gly	Glu	Lys	Leu	Asp	Tyr	Phe	His	Asn	Gly	Asn	Pro	Arg	Tyr	Thr	Arg
		35					40					45			
Val	Thr	Ala	Met	Glu	Tyr	Leu	Asn	Gly	Gln	Asp	Cys	Ser	Leu	Leu	Leu
	50					55				60					
Thr	Ala	Thr	Asp	Asp	Gly	Ala	Ile	Arg	Val	Trp	Lys	Asn	Phe	Ala	Asp
65					70					75					80
Leu	Glu	Lys	Asn	Pro	Glu	Met	Val	Thr	Ala	Trp	Gln	Gly	Leu	Ser	Asp
			85						90					95	
Met	Leu	Pro	Thr	Thr	Arg	Gly	Ala	Gly	Met	Val	Val	Asp	Trp	Glu	Gln
			100				105						110		
Glu	Thr	Gly	Leu	Leu	Met	Ser	Ser	Gly	Asp	Val	Arg	Ile	Val	Arg	Ile
		115					120					125			
Trp	Asp	Thr	Asp	Arg	Glu	Met	Lys	Val	Gln	Asp	Ile	Pro	Thr	Gly	Ala
	130					135					140				
Asp	Ser	Cys	Val	Thr	Ser	Leu	Ser	Cys	Asp	Ser	His	Arg	Ser	Leu	Ile
145					150					155					160
Val	Ala	Gly	Leu	Gly	Asp	Gly	Ser	Ile	Arg	Val	Tyr	Asp	Arg	Arg	Met
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<210> 3493

<211> 2244

<212> DNA

<213> Homo sapiens

<400> 3493

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180
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240
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360
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540
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720
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780
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840
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900
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960
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1080
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 1980
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 2040
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<210> 3494

<211> 628

<212> PRT

<213> Homo sapiens

<400> 3494

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Gln	Pro	Ser	Asn	Lys	Glu	Leu	Phe	Gly	Asp	Asp	Ser	Glu	Asp	Glu	Gly
			20					25					30		
Ala	Ser	His	His	Ser	Gly	Ser	Asp	Asn	His	Ser	Glu	Arg	Ser	Asp	Asn
		35					40					45			
Arg	Ser	Glu	Ala	Ser	Glu	Arg	Ser	Asp	His	Glu	Asp	Asn	Asp	Pro	Ser
	50					55				60					
Asp	Val	Asp	Gln	His	Ser	Gly	Ser	Glu	Ala	Pro	Asn	Asp	Asp	Glu	Asp
65					70				75					80	
Glu	Gly	His	Arg	Ser	Asp	Gly	Gly	Ser	His	His	Ser	Glu	Ala	Glu	Gly
			85						90					95	
Ser	Glu	Lys	Ala	His	Ser	Asp	Asp	Glu	Lys	Trp	Gly	Arg	Glu	Asp	Lys
			100					105					110		
Ser	Asp	Gln	Ser	Asp	Asp	Glu	Lys	Ile	Gln	Asn	Ser	Asp	Asp	Glu	Glu
	115					120						125			
Arg	Ala	Gln	Gly	Ser	Asp	Glu	Asp	Lys	Leu	Gln	Asn	Ser	Asp	Asp	Asp
	130					135					140				
Glu	Lys	Met	Gln	Asn	Thr	Asp	Asp	Glu	Glu	Arg	Pro	Gln	Leu	Ser	Asp
145				150					155					160	
Asp	Glu	Arg	Gln	Gln	Leu	Ser	Glu	Glu	Glu	Lys	Ala	Asn	Ser	Asp	Asp
			165						170					175	
Glu	Arg	Pro	Val	Ala	Ser	Asp	Asn	Asp	Asp	Glu	Lys	Gln	Asn	Ser	Asp
			180						185				190		
Asp	Glu	Glu	Gln	Pro	Gln	Leu	Ser	Asp	Glu	Glu	Lys	Met	Gln	Asn	Ser
	195					200						205			
Asp	Asp	Glu	Arg	Pro	Gln	Ala	Pro	Asp	Glu	Glu	His	Arg	His	Ser	Asp

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225              230              235              240
Ser Glu Asp Glu Val Leu Arg Met Lys Arg Lys Asn Ala Ile Ala Ser
      245              250              255
Asp Ser Glu Ala Asp Ser Asp Thr Glu Val Pro Lys Asp Asn Ser Gly
      260              265              270
Thr Met Asp Leu Phe Gly Gly Ala Asp Asp Ile Ser Ser Gly Ser Asp
      275              280              285
Gly Glu Asp Lys Pro Pro Thr Pro Gly Gln Pro Val Asp Glu Asn Gly
      290              295              300
Leu Pro Gln Asp Gln Gln Glu Glu Pro Ile Pro Glu Thr Arg Ile
305              310              315              320
Glu Val Glu Ile Pro Lys Val Asn Thr Asp Leu Gly Asn Asp Leu Tyr
      325              330              335
Phe Val Lys Leu Pro Asn Phe Leu Ser Val Glu Pro Arg Pro Phe Asp
      340              345              350
Pro Gln Tyr Tyr Glu Asp Glu Phe Glu Asp Glu Glu Met Leu Asp Glu
      355              360              365
Glu Gly Arg Thr Arg Leu Lys Leu Lys Val Glu Asn Thr Ile Arg Trp
      370              375              380
Arg Ile Arg Arg Asp Glu Glu Gly Asn Glu Ile Lys Glu Ser Asn Ala
385              390              395              400
Arg Ile Val Lys Trp Ser Asp Gly Ser Met Ser Leu His Leu Gly Asn
      405              410              415
Glu Val Phe Asp Val Tyr Lys Ala Pro Leu Gln Gly Asp His Asn His
      420              425              430
Leu Phe Ile Arg Gln Gly Thr Gly Leu Gln Gly Gln Ala Val Phe Lys
      435              440              445
Ala Lys Leu Thr Phe Arg Pro His Ser Thr Asp Ser Ala Thr His Arg
      450              455              460
Lys Met Thr Leu Ser Leu Ala Asp Arg Cys Ser Lys Thr Gln Lys Ile
465              470              475              480
Arg Ile Leu Pro Met Ala Gly Arg Asp Pro Glu Cys Gln Arg Thr Glu
      485              490              495
Met Ile Lys Lys Glu Glu Glu Arg Leu Arg Ala Ser Ile Arg Arg Glu
      500              505              510
Ser Gln Gln Arg Arg Met Arg Glu Lys Gln His Gln Arg Gly Leu Ser
      515              520              525
Ala Ser Tyr Leu Glu Pro Asp Arg Tyr Asp Glu Glu Glu Gly Glu
      530              535              540
Glu Ser Ile Ser Leu Ala Ala Ile Lys Asn Arg Tyr Lys Gly Gly Ile
545              550              555              560
Arg Glu Glu Arg Ala Arg Ile Tyr Ser Ser Asp Ser Asp Glu Gly Ser
      565              570              575
Glu Glu Asp Lys Ala Gln Arg Leu Leu Lys Ala Lys Lys Leu Thr Ser
      580              585              590
Asp Glu Glu Gly Glu Pro Ser Gly Lys Arg Lys Ala Glu Asp Asp Asp
      595              600              605
Lys Ala Asn Lys Lys His Lys Lys Tyr Val Ile Ser Asp Glu Glu Glu
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Glu Asp Asp Asp
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<210> 3495
 <211> 1085
 <212> DNA
 <213> Homo sapiens

<400> 3495
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 120
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 180
 aagaaccgg atgagggcga gaagtttaa ctcatatccc aggcataatga agtgctttca
 240
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 300
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 360
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 420
 gaagatctat ataatggagt cacgaagaaa ttggccctcc agaaaaatgt aatttgtag
 480
 aaatgtgaag gtgttggtgg gaagaaggga tcggtggaga agtgcccgt gtgcaagggg
 540
 cgggggatgc agatccacat ccagcagatc gggccgggca tggtagagca gatccagacc
 600
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 660
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 720
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 780
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 840
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 900
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 960
 aagcacgggg acctgagatg cgtgcgcgat gaaggaatgc ccatctacaa agcaccctg
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 1085

<210> 3496
 <211> 337
 <212> PRT
 <213> Homo sapiens

<400> 3496
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Tyr His Pro Asp Lys Asn Pro Asp Glu Gly Glu Lys Phe Lys Leu Ile
 20 25 30
 35 40 45
 Ser Gln Ala Tyr Glu Val Leu Ser Asp Pro Lys Lys Arg Asp Val Tyr
 50 55 60
 Asp Gln Gly Gly Glu Gln Ala Ile Lys Glu Gly Gly Ser Gly Ser Pro
 65 70 75 80
 Ser Phe Ser Ser Pro Met Asp Ile Phe Asp Met Phe Phe Gly Gly Gly
 85 90 95
 Gly Arg Met Ala Arg Glu Arg Arg Gly Lys Asn Val Val His Gln Leu
 100 105 110
 Ser Val Thr Leu Glu Asp Leu Tyr Asn Gly Val Thr Lys Lys Leu Ala
 115 120 125
 Leu Gln Lys Asn Val Ile Cys Glu Lys Cys Glu Gly Val Gly Gly Lys
 130 135 140
 Lys Gly Ser Val Glu Lys Cys Pro Leu Cys Lys Gly Arg Gly Met Gln
 145 150 155 160
 Ile His Ile Gln Gln Ile Gly Pro Gly Met Val Gln Gln Ile Gln Thr
 165 170 175
 Val Cys Ile Glu Cys Lys Gly Gln Gly Glu Arg Ile Asn Pro Lys Asp
 180 185 190
 Arg Cys Glu Ser Cys Ser Gly Ala Lys Val Ile Arg Glu Lys Lys Ile
 195 200 205
 Ile Glu Val His Val Glu Lys Gly Met Lys Asp Gly Gln Lys Ile Leu
 210 215 220
 Phe His Gly Glu Gly Asp Gln Glu Pro Glu Leu Glu Pro Gly Asp Val
 225 230 235 240
 Ile Ile Val Leu Asp Gln Lys Asp His Ser Val Phe Gln Arg Arg Gly
 245 250 255
 His Asp Leu Ile Met Lys Met Lys Ile Gln Leu Ser Glu Ala Leu Cys
 260 265 270
 Gly Phe Lys Lys Thr Ile Lys Thr Leu Asp Asn Arg Ile Leu Val Ile
 275 280 285
 Thr Ser Lys Ala Gly Glu Val Ile Lys His Gly Asp Leu Arg Cys Val
 290 295 300
 Arg Asp Glu Gly Met Pro Ile Tyr Lys Ala Pro Leu Glu Lys Gly Ile
 305 310 315 320
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 325 330 335
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<210> 3497

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 3497

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 120
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 180

ccttatttta ccttttctta aattacctcc ctccctcctt agtgaaatga gccttccttc
240
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300
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600
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660
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720
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780
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1020
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<210> 3498

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3498

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          20           25           30
Cys Cys Cys Cys Ser Cys Ser Cys Leu Thr Val Arg Asn Glu Glu Arg
          35           40           45
Gly Glu Asn Ala Gly Arg Pro Thr His Thr Thr Lys Met Glu Ser Ile
          50           55           60
Gln Val Leu Glu Glu Cys Gln Asn Pro Thr Ala Glu Glu Val Leu Ser
          65           70           75           80
Trp Ser Gln Asn Phe Asp Lys Met Met Lys Ala Pro Ala Gly Arg Asn
          85           90           95
Leu Phe Arg Glu Phe Leu Arg Thr Glu Tyr Ser Glu Glu Asn Leu Leu
          100          105          110
Phe Trp Leu Ala Cys Glu Asp Leu Lys Lys Glu Gln Asn Lys Lys Val
          115          120          125
Ile Glu Glu Lys Ala Arg Met Ile Tyr Glu Asp Tyr Ile Ser Ile Leu
          130          135          140
Ser Pro Lys Glu Val Ser Leu Asp Ser Arg Val Arg Glu Val Ile Asn
          145          150          155          160
Arg Asn Leu Leu Asp Pro Asn Pro His Met Tyr Glu Asp Ala Gln Leu
          165          170          175
Gln Ile Tyr Thr Leu Met His Arg Asp Ser Phe Pro Arg Phe Leu Asn
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<210> 3499

<211> 732

<212> DNA

<213> Homo sapiens

<400> 3499

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420
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480
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540

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<210> 3500

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3500

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			20					25					30		
Ala	Ser	Thr	Gly	Lys	Gln	Gly	Ala	Pro	Gly	Pro	Asp	Trp	Ala	Cys	Ile
			35				40					45			
Phe	His	Val	Val	Leu	Gln	Pro	Ser	Arg	His	Gly	Pro	Glu	Ala	Thr	Ala
	50				55					60					
Ala	Pro	Gln	Ser	Pro	Pro	Thr	Pro	Ala	Val	Pro	Pro	Gly	His	Gly	Ala
65					70					75				80	
His	Asp	Ser	Gly	Pro	Gly	Gln	Arg	Gln	Arg	Gln	Gly	Ala	Gly	Ser	Thr
				85				90						95	
Pro	Ala	Arg	Val	Pro	Val	His	Gly	Ser	Pro	Ser	Ser	Cys	Arg	Ala	Leu
			100					105					110		
Arg	Pro	Ala	Gly	Arg	Ser	Ser	Arg	Ala	Ala	Pro	Arg	Ala	Ser	Pro	Ala
		115					120					125			
Gly	Gln	Ala	Ser	Ser	Arg	Pro	Xaa	Ser	Gly	Ala	Met	His	Arg	Leu	Gly
	130					135					140				
Glu	Gly	Asn	Arg	Ala	Gly	Glu	Lys	Val	Phe	Arg	Arg	Thr	Ala	Val	Gln
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Lys	Arg	Arg	Val	Gly	Gly	Gly	Thr								
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<210> 3501

<211> 691

<212> DNA

<213> Homo sapiens

<400> 3501

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 120
 ccccttatag agaagatgga tgcctccttg tccatgcttg ctaattgcga gaagctttca
 180
 ctgtctacaa actgcattga aaaaattgcc aacctgaatg gcttaaaaaa cttgaggata
 240
 ttatcttttag gaagaaacaa cataaagaac ttaaatggac tggaggcagt aggggacaca
 300

ttagaagaac tgtggatctc ctacaatttt attgagaagt tgaaagggat ccacataatg
 360
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 420
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 480
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<210> 3502

<211> 196

<212> PRT

<213> Homo sapiens

<400> 3502

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			20					25					30		
Glu	Ile	Lys	Leu	Tyr	Ala	Gln	Ile	Pro	Pro	Ile	Glu	Lys	Met	Asp	Ala
		35				40						45			
Ser	Leu	Ser	Met	Leu	Ala	Asn	Cys	Glu	Lys	Leu	Ser	Leu	Ser	Thr	Asn
	50					55				60					
Cys	Ile	Glu	Lys	Ile	Ala	Asn	Leu	Asn	Gly	Leu	Lys	Asn	Leu	Arg	Ile
65					70					75				80	
Leu	Ser	Leu	Gly	Arg	Asn	Asn	Ile	Lys	Asn	Leu	Asn	Gly	Leu	Glu	Ala
			85					90						95	
Val	Gly	Asp	Thr	Leu	Glu	Glu	Leu	Trp	Ile	Ser	Tyr	Asn	Phe	Ile	Glu
			100					105					110		
Lys	Leu	Lys	Gly	Ile	His	Ile	Met	Lys	Lys	Leu	Lys	Ile	Leu	Tyr	Met
		115					120					125			
Ser	Asn	Asn	Leu	Val	Lys	Asp	Trp	Ala	Glu	Phe	Val	Lys	Leu	Ala	Glu
	130					135					140				
Leu	Pro	Cys	Leu	Glu	Asp	Leu	Val	Phe	Val	Gly	Asn	Pro	Leu	Glu	Glu
145				150					155					160	
Lys	His	Ser	Ala	Glu	Asn	Asn	Trp	Ile	Glu	Glu	Ala	Thr	Lys	Arg	Val
			165					170						175	
Pro	Lys	Leu	Lys	Lys	Leu	Asp	Gly	Thr	Pro	Val	Ile	Lys	Gly	Asp	Glu
		180					185							190	
Glu	Glu	Asp	Asn												
		195													

<210> 3503

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3503

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 120
 aatgcccaga gattagcggg gaagctccga gccagaaaac gggaacaaga cacaagaag
 180
 gagccggtgt ccacaaacgc tgttcagcgg agagtgcaag aaatagtgcg gttcacacgg
 240
 cagctgcagc gagtccaccc caacgtgctt gctaaggcac tgacccgagg aattctccac
 300
 caggacaaga accttgtggg catcaataag ccctacgggc tccctgtgca tgggtggccct
 360
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 420
 aaggcagagc ccttgcattt gtgccaccgg ctggacaagg aaaccacagg tgtaatgggtg
 480
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 600
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 720
 gttgctgtaa ctcatgacca ggtgctcagc agcactctct cctccgccct cgtggagctc
 780
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 840
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 857

<210> 3504

<211> 285

<212> PRT

<213> Homo sapiens

<400> 3504

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Gln	Gly	Cys	Gly	Ser	Leu	Phe	Thr	Leu	Val	Ser	Lys	Pro	Phe	Cys	Ala
		20						25					30		
Ala	Ala	Ala	Ala	Ser	Thr	Ala	Ile	Asn	Ala	Gln	Arg	Leu	Ala	Glu	Lys
		35				40						45			
Leu	Arg	Ala	Gln	Lys	Arg	Glu	Gln	Asp	Thr	Lys	Lys	Glu	Pro	Val	Ser
		50				55						60			
Thr	Asn	Ala	Val	Gln	Arg	Arg	Val	Gln	Glu	Ile	Val	Arg	Phe	Thr	Arg
65					70					75				80	
Gln	Leu	Gln	Arg	Val	His	Pro	Asn	Val	Leu	Ala	Lys	Ala	Leu	Thr	Arg
				85					90					95	
Gly	Ile	Leu	His	Gln	Asp	Lys	Asn	Leu	Val	Val	Ile	Asn	Lys	Pro	Tyr
		100						105					110		
Gly	Leu	Pro	Val	His	Gly	Gly	Pro	Gly	Val	Gln	Leu	Cys	Ile	Thr	Asp
		115					120					125			
Val	Leu	Pro	Ile	Leu	Ala	Lys	Met	Leu	His	Gly	His	Lys	Ala	Glu	Pro

130	135	140	
Leu His Leu Cys His Arg	Leu Asp Lys Glu Thr Thr Gly Val Met Val		
145	150	155	160
Leu Ala Trp Asp Lys Asp Met Ala His Gln Val Gln Glu Leu Phe Arg			
	165	170	175
Thr Arg Gln Val Val Lys Lys Tyr Trp Ala Ile Thr Val His Val Pro			
	180	185	190
Met Pro Ser Ala Gly Val Val Asp Ile Pro Ile Val Glu Lys Glu Gly			
	195	200	205
Gln Gly Gln Gln Gln His Pro Arg Met Thr Leu Ser Pro Ser Ser Arg			
	210	215	220
Met Asp Asp Gly Lys Met Val Lys Val Arg Arg Ser Arg Asn Ala Gln			
225	230	235	240
Val Ala Val Thr Gln Tyr Gln Val Leu Ser Ser Thr Leu Ser Ser Ala			
	245	250	255
Leu Val Glu Leu Gln Pro Ile Thr Gly Ile Lys His Gln Leu Arg Val			
	260	265	270
His Leu Ser Phe Gly Leu Asp Cys Pro Ile Leu Gly Asp			
275	280	285	

<210> 3505

<211> 1612

<212> DNA

<213> Homo sapiens

<400> 3505

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120
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180
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240
caccgggtgg ccgtgaaggg gcggcaggcg ctgcccaccg aggcggccat cctcacgctc
300
ggcctcact cgtcctactt cgacgccatc cctgtgacca tgacgatgtc ctccatcgtg
360
atgaagacag agagcagaga catcccgatc tggggaactc tgatccagta tatacggcct
420
gtgttcgtgt cccggtcaga ccaggattct cgcaggaaaa cagtagaaga aatcaagaga
480
cgggcgcagt ccaacggaaa gtggccacag ataatgattt ttccagaagg aacttgtaca
540
aacaggacct gcctaattac cttcaaacct ggtgcattca tccctggagc gcccgccac
600
cctggggttt tacgatatcc aaataaactg gacaccatca catggacgtg gcaaggacct
660
ggagcgcgtg aaatcctgtg gctcacgctg tgtcagtttc acaaccaagt ggaaatcgag
720
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780
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840

gactgccagc tggccctggc ggaaggacag ctccgtctcc ccgctgacac ttgcctttta
 900
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 gccgcctccc tggaagtccc cgtttctgac ttgctggaag acatgttttc actgttcgac
 1080
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 1200
 gacggcagcg tcggcgaagg tgacctgtcc tgcacctca agacggccct gggggtggca
 1260
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 1320
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 1380
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 1440
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 1500
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 1612

<210> 3506

<211> 502

<212> PRT

<213> Homo sapiens

<400> 3506

Val	His	Glu	Leu	His	Leu	Ser	Ala	Leu	Gln	Lys	Ala	Gln	Val	Ala	Leu
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Met	Thr	Leu	Thr	Leu	Phe	Pro	Val	Arg	Leu	Leu	Val	Ala	Ala	Ala	Met
				20				25					30		
Met	Leu	Leu	Ala	Trp	Pro	Leu	Ala	Leu	Val	Ala	Ser	Leu	Gly	Ser	Ala
				35			40				45				
Glu	Lys	Glu	Pro	Glu	Gln	Pro	Pro	Ala	Leu	Trp	Arg	Lys	Val	Val	Asp
	50				55						60				
Phe	Leu	Leu	Lys	Ala	Ile	Met	Arg	Thr	Met	Trp	Phe	Ala	Gly	Gly	Phe
65					70					75				80	
His	Arg	Val	Ala	Val	Lys	Gly	Arg	Gln	Ala	Leu	Pro	Thr	Glu	Ala	Ala
				85				90						95	
Ile	Leu	Thr	Leu	Ala	Pro	His	Ser	Ser	Tyr	Phe	Asp	Ala	Ile	Pro	Val
				100				105					110		
Thr	Met	Thr	Met	Ser	Ser	Ile	Val	Met	Lys	Thr	Glu	Ser	Arg	Asp	Ile
				115			120					125			
Pro	Ile	Trp	Gly	Thr	Leu	Ile	Gln	Tyr	Ile	Arg	Pro	Val	Phe	Val	Ser
				130			135				140				
Arg	Ser	Asp	Gln	Asp	Ser	Arg	Arg	Lys	Thr	Val	Glu	Glu	Ile	Lys	Arg
145					150					155				160	
Arg	Ala	Gln	Ser	Asn	Gly	Lys	Trp	Pro	Gln	Ile	Met	Ile	Phe	Pro	Glu

165 170 175
 Gly Thr Cys Thr Asn Arg Thr Cys Leu Ile Thr Phe Lys Pro Gly Ala
 180 185 190
 Phe Ile Pro Gly Ala Pro Val His Pro Gly Val Leu Arg Tyr Pro Asn
 195 200 205
 Lys Leu Asp Thr Ile Thr Trp Thr Trp Gln Gly Pro Gly Ala Leu Glu
 210 215 220
 Ile Leu Trp Leu Thr Leu Cys Gln Phe His Asn Gln Val Glu Ile Glu
 225 230 235 240
 Phe Leu Pro Val Tyr Ser Pro Ser Glu Glu Glu Lys Arg Asn Pro Ala
 245 250 255
 Leu Tyr Ala Ser Asn Val Arg Arg Val Met Ala Glu Ala Leu Gly Val
 260 265 270
 Ser Val Thr Asp Tyr Thr Phe Glu Asp Cys Gln Leu Ala Leu Ala Glu
 275 280 285
 Gly Gln Leu Arg Leu Pro Ala Asp Thr Cys Leu Leu Glu Phe Ala Arg
 290 295 300
 Leu Val Arg Gly Leu Gly Leu Lys Pro Glu Lys Leu Glu Lys Asp Leu
 305 310 315 320
 Asp Arg Tyr Ser Glu Arg Ala Arg Met Lys Gly Gly Glu Lys Ile Gly
 325 330 335
 Ile Ala Glu Phe Ala Ala Ser Leu Glu Val Pro Val Ser Asp Leu Leu
 340 345 350
 Glu Asp Met Phe Ser Leu Phe Asp Glu Ser Gly Ser Gly Glu Val Asp
 355 360 365
 Leu Arg Glu Cys Val Val Ala Leu Ser Val Val Cys Trp Pro Ala Arg
 370 375 380
 Thr Leu Asp Thr Ile Gln Leu Ala Phe Lys Met Tyr Gly Ala Gln Glu
 385 390 395 400
 Asp Gly Ser Val Gly Glu Gly Asp Leu Ser Cys Ile Leu Lys Thr Ala
 405 410 415
 Leu Gly Val Ala Glu Leu Thr Val Thr Asp Leu Phe Arg Ala Ile Asp
 420 425 430
 Gln Glu Glu Lys Gly Lys Ile Thr Phe Ala Asp Phe His Arg Phe Ala
 435 440 445
 Glu Met Tyr Pro Ala Phe Ala Glu Glu Tyr Leu Tyr Pro Asp Gln Thr
 450 455 460
 His Phe Glu Ser Cys Ala Glu Thr Ser Pro Ala Pro Ile Pro Asn Gly
 465 470 475 480
 Phe Cys Ala Asp Phe Ser Pro Glu Asn Ser Asp Ala Gly Arg Lys Pro
 485 490 495
 Val Arg Lys Lys Leu Asp
 500

<210> 3507

<211> 885

<212> DNA

<213> Homo sapiens

<400> 3507

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 120

cgagcccgt ccccgccatc cgtgctcaag tcccactcgc ttagtcatt gttgatgctg
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 240
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 300
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 360
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 480
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 600
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 660
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 720
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 780
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 885

<210> 3508

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3508

Leu	Arg	Thr	Leu	Leu	Asn	Leu	Leu	Phe	Leu	Pro	Asp	Gly	Leu	Cys	Gln
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Arg	Arg	Leu	Leu	Cys	Glu	Val	Ala	Ile	Ala	Val	Tyr	Thr	Phe	Gly	Thr
		20					25						30		
Cys	Ile	Ala	Phe	Leu	Ile	Ile	Ile	Gly	Asp	Gln	Gln	Asp	Lys	Ile	Ile
	35					40					45				
Ala	Val	Met	Ala	Lys	Glu	Pro	Glu	Gly	Ala	Ser	Gly	Pro	Trp	Tyr	Thr
	50				55						60				
Asp	Arg	Lys	Phe	Thr	Ile	Ser	Leu	Thr	Ala	Phe	Leu	Phe	Ile	Leu	Pro
65				70					75					80	
Leu	Ser	Ile	Pro	Arg	Glu	Ile	Gly	Phe	Gln	Lys	Tyr	Ala	Ser	Phe	Leu
			85				90							95	
Ser	Val	Val	Gly	Thr	Trp	Tyr	Val	Thr	Ala	Ile	Val	Ile	Ile	Lys	Tyr
	100						105					110			
Ile	Trp	Pro	Asp	Lys	Glu	Met	Thr	Pro	Gly	Asn	Ile	Leu	Thr	Arg	Pro
	115					120					125				
Ala	Ser	Trp	Met	Ala	Val	Phe	Asn	Ala	Met	Pro	Thr	Ile	Cys	Phe	Gly
	130				135					140					
Phe	Gln	Cys	His	Val	Ser	Ser	Val	Pro	Val	Phe	Asn	Ser	Met	Gln	Gln
145				150					155					160	
Pro	Glu	Val	Lys	Thr	Trp	Gly	Gly	Val	Val	Thr	Ala	Ala	Met	Val	Ile

165 170 175
 Ala Leu Ala Val Tyr Met Gly Thr Gly Ile Cys Gly Phe Leu Thr Phe
 180 185 190
 Gly Ala Ala Val Asp Pro Asp
 195

<210> 3509
 <211> 331
 <212> DNA
 <213> Homo sapiens

<400> 3509
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 gccctggtgc atgtcaaggc cgagtacttc cgctccctgg cccactacca cgtagccatg
 120
 gccctctgcg acggctcccc gaccgagggg gagctcccca cgcacgagca ggtcttcctg
 180
 agccccccac ctccctttaag cccccgaggg cctgggttgc cccagaagtt ggaggagcgc
 240
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 300
 tggcagggtg tccccacca ccctcacgcg t
 331

<210> 3510
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3510
 Leu Val His Arg Thr Met Ala Gln Pro Pro Val His Asp Tyr Val Pro
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 20 25 30
 Leu Ala His Tyr His Val Ala Met Ala Leu Cys Asp Gly Ser Pro Thr
 35 40 45
 Glu Gly Glu Leu Pro Thr His Glu Gln Val Phe Leu Ser Pro Pro Pro
 50 55 60
 Pro Leu Ser Pro Arg Gly Pro Gly Leu Pro Gln Lys Leu Glu Glu Arg
 65 70 75 80
 Arg Gln Leu Gly Lys Ala Pro Met Gly Gly Val Pro Trp Gly Ser Asp
 85 90 95
 Gly His Gln Arg Trp Gln Gly Val Pro His His Pro His Ala
 100 105 110

<210> 3511
 <211> 3319
 <212> DNA
 <213> Homo sapiens

<400> 3511
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120
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240
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360
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420
tcaaaccatc tacaatatgt cagcttcaag gtggacagca gcaaggaatc agctgaagca
480
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660
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1320
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1680

cctatatggtt ataatatcca agaagtacta atagggttttc tgaaatgtta tattctctat
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2580
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2640
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2700
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2760
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2820
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2880
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3060
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3180
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3240
tttatcactt tgagaataaa aagttactaa tgcaaaaaaa aaaaaaaaaa aaaaaaaaaa
3300

355	360	365
Val Glu Leu Val Val Cys Ala Asn Gly Leu Arg	Pro Leu Asp Glu Glu	
370	375	380
Leu Ile Arg Ile Ala Glu Arg Cys Lys Asn Leu Ser Ala Ile Gly Leu		
385	390	395
Gly Glu Cys Glu Val Ser Cys Ser Ala Phe Val Glu Phe Val Lys Met		400
	405	410
Cys Gly Gly Arg Leu Ser Gln Leu Ser Ile Met Glu Glu Val Leu Ile		415
	420	425
Pro Asp Gln Lys Tyr Ser Leu Glu Gln Ile His Trp Glu Val Ser Lys		430
	435	440
His Leu Gly Arg Val Trp Phe Pro Asp Met Met Pro Thr Trp		445
	450	455
		460

<210> 3513

<211> 2103

<212> DNA

<213> Homo sapiens

<400> 3513

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 120
 ggcctgtgga gtgactactc agaatatgaa cccaaggag agagtcaaaa tacagacttg
 180
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<211> 484

<212> PRT

<213> Homo sapiens

<400> 3514

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<212> DNA

<213> Homo sapiens

<400> 3515

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<211> 547

<212> PRT

<213> Homo sapiens

<400> 3516

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<211> 342

<212> DNA

<213> Homo sapiens

<400> 3517

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342

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<211> 303

<212> PRT

<213> Homo sapiens

<400> 3520

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Pro Thr Thr Val Pro Ser Pro Ala Ser Gly Lys Pro Ser Ser Glu Pro
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<400> 3521

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<211> 181

<212> PRT

<213> Homo sapiens

<400> 3522

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<210> 3523

<211> 2614

<212> DNA

<213> Homo sapiens

<400> 3523

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<212> PRT

<213> Homo sapiens

<400> 3524

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			20				25						30		
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Gln	Pro	Ser	Phe	Glu	Pro	Thr	Lys	Asn	Lys	Glu	Leu	Thr	Asp	Glu	Phe
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<211> 304

<212> PRT

<213> Homo sapiens

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Arg	Lys	Gly	Ile	Cys	Glu	Tyr	His	Leu	Lys	Asn	Tyr	Ala	Ala	Ala	Leu
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Val	Val	Met	Glu	Pro	Ala	Leu	Glu	Gly	Thr	Gly	Lys	Glu	Gly	Lys	Lys
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Ala	Ser	Ser	Arg	Lys	Arg	Thr	Leu	Ala	Glu	Pro	Pro	Ala	Lys	Gly	Leu
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Ser Glu Lys Lys Lys Asp Arg	Ile Asp Ala Phe Leu Arg	Glu Val Asn
165	170	175
Gln Arg Val Val Arg Val Pro	Ser Val Pro Glu Thr Glu	Leu Thr Asp
180	185	190
Gln Ala Trp Leu Pro Ala Gly	Val Arg Val Pro Leu His	Gln Val Pro
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Tyr Ala Val Lys Gly Cys Phe	Arg Phe Leu Pro Pro Ala	Gln Val Thr
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225	230	235
Val Asp Val Ala Leu Thr Met	Pro Arg Glu Ile Leu Gln	Asp Lys Asp
245	250	255
Gly Leu Asn Gln Arg Tyr Phe	Arg Lys Arg Ala Leu Tyr	Leu Ala His
260	265	270
Leu Ala His His Leu Ala Gln	Asp Pro Leu Phe Gly Ser	Val Cys Phe
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<210> 3527

<211> 2838

<212> DNA

<213> Homo sapiens

<400> 3527

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<212> PRT

<213> Homo sapiens

<400> 3528

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Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Gly	Pro	Ile	Gln	Leu	Gln	Gln	Asp
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Val	Glu	Phe	Ala	Ile	Ser	Arg	Val	Gln	Met	Asn	Phe	Leu	His	Leu	Leu
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Ser	Ser	Glu	Val	Thr	Gln	His	Ile	Thr	Ile	His	Cys	Leu	Asn	Met	Thr
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225		230		235		240
Gln Thr Leu Phe Thr Phe Arg Thr Gln Asp Pro Gln Gln Leu Pro Ile						
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<210> 3529

<211> 3026

<212> DNA

<213> Homo sapiens

<400> 3529

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<210> 3530

<211> 206

<212> PRT

<213> Homo sapiens

<400> 3530

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		20						25					30		
Cys	Xaa	Ser	Pro	Val	Ala	Gly	Val	Ala	His	Arg	Phe	His	Ser	Thr	Cys
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Gly	Lys	Asn	Val	Thr	Leu	Glu	Asp	Gly	Thr	Arg	Ala	Val	Arg	Ala	
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Ala	Gly	Tyr	Ala	His	Gly	Leu	Val	Phe	Ser	Thr	Lys	Glu	Leu	Arg	Ala
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Glu	Glu	Val	Phe	Glu	Val	Lys	Val	Glu	Glu	Leu	Asp	Glu	Lys	Trp	Ala
				85					90					95	
Gly	Ser	Leu	Arg	Leu	Gly	Leu	Thr	Thr	Leu	Ala	Pro	Gly	Glu	Met	Gly
			100					105					110		
Pro	Gly	Ala	Gly	Gly	Gly	Gly	Pro	Gly	Leu	Pro	Pro	Ser	Leu	Pro	Glu
		115					120					125			
Leu	Arg	Thr	Lys	Thr	Thr	Trp	Met	Val	Ser	Ser	Cys	Glu	Val	Arg	Arg
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Asp	Gly	Gln	Leu	Gln	Arg	Met	Asn	Tyr	Gly	Arg	Asn	Leu	Glu	Arg	Leu
145					150					155				160	
Gly	Val	Lys	Trp	Leu	Ala	Pro	Gly	Thr	Gly	Glu	Gly	Leu	Gly	Val	Glu
				165					170					175	
Val	Ala	Gly	Arg	Gly	Gly	Leu	Asn	Ile	Val	Arg	Pro	Cys	Pro	Thr	Ser
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<210> 3531

<211> 879

<212> DNA

<213> Homo sapiens

<400> 3531

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<210> 3532

<211> 254

<212> PRT

<213> Homo sapiens

<400> 3532

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 35 40 45
 Lys Lys Ala Asp Met Val Asn Glu Asp Leu Leu Ser Asp Gly Thr Ser
 50 55 60
 Glu Asn Glu Ser Gly Phe Trp Asp Ser Phe Lys Trp Gly Phe Thr Gly
 65 70 75 80
 Gln Lys Thr Glu Glu Val Lys Gln Asp Lys Asp Asp Ile Ile Asn Ile
 85 90 95
 Phe Ser Val Ala Ser Gly His Leu Tyr Glu Arg Phe Leu Arg Ile Met
 100 105 110
 Met Leu Ser Val Leu Lys Asn Thr Lys Thr Pro Val Lys Phe Trp Phe
 115 120 125
 Leu Lys Asn Tyr Leu Ser Pro Thr Phe Lys Glu Phe Ile Pro Tyr Met
 130 135 140
 Ala Asn Glu Tyr Asn Phe Gln Tyr Glu Leu Val Gln Tyr Lys Trp Pro
 145 150 155 160
 Arg Trp Leu His Gln Gln Thr Glu Lys Gln Arg Ile Ile Trp Gly Tyr
 165 170 175
 Lys Ile Leu Phe Leu Asp Val Leu Phe Pro Leu Val Val Asp Lys Phe

180								185				190			
Leu	Phe	Val	Asp	Ala	Asp	Gln	Ile	Val	Arg	Thr	Asp	Leu	Lys	Glu	Leu
195								200				205			
Arg	Asp	Phe	Asn	Leu	Asp	Gly	Ala	Pro	Tyr	Gly	Tyr	Thr	Pro	Phe	Cys
210								215				220			
Asp	Ser	Arg	Arg	Glu	Met	Asp	Gly	Tyr	Arg	Phe	Trp	Lys	Ser	Gly	Tyr
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<210> 3533

<211> 1151

<212> DNA

<213> Homo sapiens

<400> 3533

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180	atggacatga	ccggtggctt	gtcgggtgaag	gacccatccc	agtcccagtc	acgcctcccc
240	cagtggacgc	accccaactc	catggataac	ttgcccagtg	ccgcttcccc	cctgggagcag
300	aaccctagca	agcatgggtgc	tatccctgga	ggtctaagca	ttgggcctcc	aggtaagtcc
360	tccattgatg	actcctatgg	ccggtacgat	ttaatccaga	acagtgagtc	accagccagt
420	cctcccgtag	ctgttcccca	tagctgggtca	cgtgccaaat	ctgacagtga	taaaatctca
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540	cagaatattg	accctgagaa	tgaccctgac	gtcactcctg	gcagtgtccc	cactgggcct
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660	ccgccatcat	ctcagaatgc	cacgctgcct	tcttcgagtg	cctggccact	cagtgcctcc
720	ggctacagta	gctctttcag	cagcattgca	tccgcacctc	gtgttgagg	taaactgtca
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<210> 3534
<211> 313
<212> PRT
<213> Homo sapiens

<400> 3534
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35 40 45
Lys His Gly Ala Ile Pro Gly Gly Leu Ser Ile Gly Pro Pro Gly Lys
50 55 60
Ser Ser Ile Asp Asp Ser Tyr Gly Arg Tyr Asp Leu Ile Gln Asn Ser
65 70 75 80
Glu Ser Pro Ala Ser Pro Pro Val Ala Val Pro His Ser Trp Ser Arg
85 90 95
Ala Lys Ser Asp Ser Asp Lys Ile Ser Asn Gly Ser Ser Ile Asn Trp
100 105 110
Pro Pro Glu Phe His Pro Gly Val Pro Trp Lys Gly Leu Gln Asn Ile
115 120 125
Asp Pro Glu Asn Asp Pro Asp Val Thr Pro Gly Ser Val Pro Thr Gly
130 135 140
Pro Thr Ile Asn Thr Thr Ile Gln Asp Val Asn Arg Tyr Leu Leu Lys
145 150 155 160
Ser Gly Gly Ser Ser Pro Pro Ser Ser Gln Asn Ala Thr Leu Pro Ser
165 170 175
Ser Ser Ala Trp Pro Leu Ser Ala Ser Gly Tyr Ser Ser Ser Phe Ser
180 185 190
Ser Ile Ala Ser Ala Pro Ser Val Ala Gly Lys Leu Ser Asp Ile Lys
195 200 205
Ser Thr Trp Ser Ser Gly Pro Thr Ser His Thr Gln Ala Ser Leu Ser
210 215 220
His Glu Leu Trp Lys Val Pro Arg Asn Ser Thr Ala Pro Thr Arg Pro
225 230 235 240
Pro Pro Gly Leu Thr Asn Pro Lys Pro Ser Ser Thr Trp Gly Ala Ser
245 250 255
Pro Leu Gly Trp Thr Ser Ser Tyr Ser Ser Gly Ser Ala Trp Ser Thr
260 265 270
Asp Thr Ser Gly Arg Thr Ser Ser Trp Leu Val Leu Arg Asn Leu Thr
275 280 285
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<210> 3535
<211> 723
<212> DNA
<213> Homo sapiens

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<210> 3536
 <211> 163
 <212> PRT
 <213> Homo sapiens

<400> 3536
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 Arg Val Ser Leu Leu Leu Leu Tyr Tyr Ile Ile His Gln Glu Glu Ile
 35 40 45
 Cys Ser Ser Lys Leu Asn Met Ser Asn Lys Glu Tyr Lys Phe Tyr Leu
 50 55 60
 His Ser Leu Leu Ser Leu Arg Gln Asp Glu Asp Ser Ser Phe Leu Ser
 65 70 75 80
 Gln Asn Glu Thr Glu Asp Ile Leu Ala Phe Thr Arg Gln Tyr Phe Asp
 85 90 95
 Thr Ser Gln Ser Gln Cys Met Glu Thr Lys Thr Leu Gln Lys Lys Ser
 100 105 110
 Gly Ile Val Ser Ser Glu Gly Ala Asn Glu Ser Thr Leu Pro Gln Leu
 115 120 125
 Ala Ala Met Ile Ile Thr Leu Ser Leu Gln Gly Val Cys Leu Gly Gln
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160

<210> 3537
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<210> 3538
<211> 154
<212> PRT
<213> Homo sapiens

<400> 3538
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 Leu Lys Asp Pro Ser Ser Asn Pro Ala Gly Pro Arg Ala Thr Ala Gly
 35 40 45
 Gln Gly Val Ala Pro Gly Phe Arg His Ala Thr Thr Arg Ala Arg
 50 55 60
 Ala Thr His Ala Ser Cys Ala His Leu Thr His Thr Pro Leu Pro Gly
 65 70 75 80
 His Ala Asp Thr Pro Gln Pro His Thr Ser His Ala Val His Leu Arg
 85 90 95
 Leu Leu Thr Ser His Ala Gln Cys Trp Cys Thr Phe Ala Ser His Met

			100					105					110				
Leu	Pro	Ser	Pro	Pro	Thr	Gln	Gly	His	Pro	Thr	Ala	Pro	Pro	Cys	Pro		
		115					120						125				
Cys	Pro	Ser	Pro	Ser	Leu	Glu	Val	Pro	Cys	Pro	Ala	Gly	Pro	Val	Asn		
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Met	Gln	Trp	Glu	Ser	Gln	Ala	Val	Gln	Trp								
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<210> 3539

<211> 818

<212> DNA

<213> Homo sapiens

<400> 3539

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240
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300
gactgtcacc cctaccccg cttctctcca gtctgaggac ggccagtcac cccattgcc
360
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<210> 3540

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3540

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Leu	Pro	Val	Cys	Gly	Arg	Pro	Val	Thr	Pro	Ile	Ala	Gln	Asn	Gln	Thr		
		20				25						30					
Thr	Leu	Gly	Ser	Ser	Arg	Ala	Lys	Leu	Gly	Asn	Phe	Pro	Trp	Gln	Ala		

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      35      40      45
Phe Thr Ser Ile His Gly Arg Gly Gly Gly Ala Leu Leu Gly Asp Arg
      50      55      60
Trp Ile Leu Thr Ala Ala His Thr Val Tyr Pro Lys Asp Ser Val Ser
65      70      75      80
Leu Arg Lys Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile
      85      90      95
Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val
      100      105      110
His Pro Asp Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile
      115      120      125
Ala Leu Leu Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu
      130      135      140
Pro Val Cys Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu
145      150      155      160
Gly Tyr Val Ser Gly Phe Gly Met Glu Met Gly Trp Leu Thr Thr Glu
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Leu Lys Tyr Ser
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<210> 3541

<211> 722

<212> DNA

<213> Homo sapiens

<400> 3541

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<210> 3542

<211> 153
 <212> PRT
 <213> Homo sapiens

<400> 3542

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Arg Met Leu Ser Phe Gln Gly Leu Ala Glu Leu Ala His Arg Glu Tyr
      20           25           30
Gln Ala Gly Asp Phe Glu Ala Ala Glu Arg His Cys Met Gln Leu Trp
      35           40           45
Arg Gln Glu Pro Asp Asn Thr Gly Val Leu Leu Leu Leu Ser Ser Ile
      50           55           60
His Phe Gln Cys Arg Arg Leu Asp Arg Ser Ala His Phe Ser Thr Leu
      65           70           75           80
Ala Ile Lys Gln Asn Pro Leu Leu Ala Glu Ala Tyr Ser Asn Leu Gly
      85           90           95
Asn Val Tyr Lys Glu Arg Gly Gln Leu Gln Glu Ala Ile Glu His Tyr
      100          105          110
Arg His Ala Leu Arg Leu Lys Pro Asp Phe Ile Asp Gly Tyr Ile Asn
      115          120          125
Ala Ala Ala Ala Leu Val Ala Ala Gly Asp Met Glu Gly Ala Val Gln
      130          135          140
Ala Tyr Val Ser Ala Leu Gln Pro Gly
      145          150

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<210> 3543
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 <212> DNA
 <213> Homo sapiens

<400> 3543

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540
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600
aaccccaaga tcccatgag agaaaggag ttctgggaat tatgtaacaa gtgtaatttg
660

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 1020
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 1080
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<210> 3544

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3544

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Met	Gly	Leu	Ile	Val	Phe	Val	Trp	Leu	Tyr	Asn	Ile	Val	Leu	Ile	Pro	20	25	30	
Lys	Ile	Val	Leu	Phe	Pro	His	Tyr	Glu	Glu	Gly	His	Ile	Pro	Gly	Ile	35	40	45	
Leu	Ile	Ile	Ile	Phe	Tyr	Gly	Ile	Ser	Ile	Phe	Cys	Leu	Val	Ala	Leu	50	55	60	
Val	Arg	Ala	Ser	Ile	Thr	Asp	Pro	Gly	Arg	Leu	Pro	Glu	Asn	Pro	Lys	65	70	75	80
Ile	Pro	His	Gly	Glu	Arg	Glu	Phe	Trp	Glu	Leu	Cys	Asn	Lys	Cys	Asn	85	90	95	
Leu	Met	Arg	Pro	Lys	Arg	Ser	His	His	Cys	Ser	Arg	Cys	Gly	His	Cys	100	105	110	
Val	Arg	Arg	Met	Asp	His	His	Cys	Pro	Trp	Ile	Asn	Asn	Cys	Val	Gly	115	120	125	
Glu	Asp	Asn	His	Trp	Leu	Phe	Leu	Gln	Leu	Cys	Phe	Tyr	Thr	Glu	Leu	130	135	140	
Leu	Thr	Cys	Tyr	Ala	Leu	Met	Phe	Ser	Phe	Cys	His	Tyr	Tyr	Tyr	Phe	145	150	155	160
Leu	Pro	Leu	Lys	Lys	Arg	Asn	Leu	Asp	Leu	Phe	Val	Phe	Arg	His	Glu	165	170	175	
Leu	Ala	Ile	Met	Arg	Leu	Ala	Ala	Phe	Met	Gly	Ile	Thr	Met	Leu	Val	180	185	190	
Gly	Ile	Thr	Gly	Leu	Phe	Tyr	Thr	Gln	Leu	Ile	Gly	Ile	Ile	Thr	Pro	195	200	205	
Cys	Ser	Leu	Ile	Leu	Leu	Lys	Cys	Gly	Ser	Val	Ser	Asn	Asn	Ser	Leu				

210	215	220
Gly Asp Leu Met Lys Ile Ser Glu Thr Phe Ala Leu Arg Ile Pro Ser		
225	230	235
Phe Val Val Met Cys Pro Glu Asn Ser Ser Leu Arg Val Phe Asn Ser		240
	245	250
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<210> 3545

<211> 3657

<212> DNA

<213> Homo sapiens

<400> 3545

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1140

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<210> 3546

<211> 792

<212> PRT

<213> Homo sapiens

<400> 3546

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Gln	Glu	Val	Trp	Pro	Ile	Ile	Trp	Leu	Arg	Leu	Thr	Leu	Ala	Leu	Thr
		20						25					30		
Leu	Ala	Asp	Pro	Gly	Trp	Ala	Ser	Ile	Ser	Arg	Gly	Val	Leu	Val	Cys
		35					40					45			
Asp	Glu	Cys	Cys	Ser	Val	His	Arg	Ser	Leu	Gly	Arg	His	Ile	Ser	Ile
	50					55					60				
Val	Lys	His	Leu	Arg	His	Ser	Ala	Trp	Pro	Pro	Thr	Leu	Leu	Gln	Met
65					70					75				80	
Val	His	Thr	Leu	Ala	Ser	Asn	Gly	Ala	Asn	Ser	Ile	Trp	Glu	His	Ser
			85					90						95	
Leu	Leu	Asp	Pro	Ala	Gln	Val	Gln	Ser	Gly	Arg	Arg	Lys	Ala	Asn	Pro
		100						105					110		
Gln	Asp	Lys	Val	His	Pro	Ile	Lys	Ser	Glu	Phe	Ile	Arg	Ala	Lys	Tyr
		115					120					125			
Gln	Met	Leu	Ala	Phe	Val	His	Lys	Leu	Pro	Cys	Arg	Asp	Asp	Asp	Gly

2708

565 570 575
 Ser Val His Val Pro Ala Gly Leu Tyr Arg Ile Arg Lys Gly Val Ser
 580 585 590
 Ala Ser Ala Val Pro Phe Thr Pro Ser Ser Pro Leu Leu Ser Cys Ser
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 Gln Glu Gly Ser Arg His Thr Ser Lys Leu Ser Arg His Gly Ser Gly
 610 615 620
 Ala Asp Ser Asp Tyr Glu Asn Thr Gln Ser Gly Asp Pro Leu Leu Gly
 625 630 635 640
 Leu Glu Gly Lys Arg Phe Leu Glu Leu Gly Lys Glu Glu Asp Phe His
 645 650 655
 Pro Glu Leu Glu Ser Leu Asp Gly Asp Leu Asp Pro Gly Leu Pro Ser
 660 665 670
 Thr Glu Asp Val Ile Leu Lys Thr Glu Gln Val Thr Lys Asn Ile Gln
 675 680 685
 Glu Leu Leu Arg Ala Ala Gln Glu Phe Lys His Asp Ser Phe Val Pro
 690 695 700
 Cys Ser Glu Lys Ile His Leu Ala Val Thr Glu Met Ala Ser Leu Phe
 705 710 715 720
 Pro Lys Arg Pro Ala Leu Glu Pro Val Arg Ser Ser Leu Arg Leu Leu
 725 730 735
 Asn Ala Ser Ala Tyr Arg Leu Gln Ser Glu Cys Arg Lys Thr Val Pro
 740 745 750
 Pro Glu Pro Gly Ala Pro Val Asp Phe Gln Leu Leu Thr Gln Gln Val
 755 760 765
 Ile Gln Cys Ala Tyr Asp Ile Ala Lys Ala Ala Lys Gln Leu Val Thr
 770 775 780
 Ile Thr Thr Arg Glu Lys Lys Gln
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<210> 3547

<211> 1039

<212> DNA

<213> Homo sapiens

<400> 3547

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<211> 346

<212> PRT

<213> Homo sapiens

<400> 3548

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Ala	Leu	Thr	Lys	Glu	Gly	Gly	Val	Phe	Thr	Phe	Gly	Ala	Gly	Gly	Tyr
			20					25					30		
Gly	Gln	Leu	Gly	His	Asn	Ser	Thr	Ser	His	Glu	Ile	Asn	Pro	Arg	Lys
		35					40					45			
Val	Phe	Glu	Leu	Met	Gly	Ser	Ile	Val	Thr	Glu	Ile	Ala	Cys	Gly	Arg
	50					55					60				
Gln	His	Thr	Ser	Ala	Phe	Val	Pro	Ser	Ser	Gly	Arg	Ile	Tyr	Ser	Phe
65					70					75					80
Gly	Leu	Gly	Gly	Asn	Gly	Gln	Leu	Gly	Thr	Gly	Ser	Thr	Ser	Asn	Arg
				85					90					95	
Lys	Ser	Pro	Phe	Thr	Val	Lys	Gly	Asn	Trp	Tyr	Pro	Tyr	Asn	Gly	Gln
			100					105					110		
Cys	Leu	Pro	Asp	Ile	Asp	Ser	Glu	Glu	Tyr	Phe	Cys	Val	Lys	Arg	Ile
		115					120					125			
Phe	Ser	Gly	Gly	Asp	Gln	Ser	Phe	Ser	His	Tyr	Ser	Ser	Pro	Gln	Asn
	130						135					140			
Cys	Gly	Pro	Pro	Asp	Asp	Phe	Arg	Cys	Pro	Asn	Pro	Thr	Lys	Gln	Ile
145					150					155					160
Trp	Thr	Val	Asn	Glu	Ala	Leu	Ile	Gln	Lys	Trp	Leu	Ser	Tyr	Pro	Ser
				165					170					175	
Gly	Arg	Phe	Pro	Val	Glu	Ile	Ala	Asn	Glu	Ile	Asp	Gly	Thr	Phe	Ser
			180					185					190		
Ser	Ser	Gly	Cys	Leu	Asn	Gly	Ser	Phe	Leu	Ala	Val	Ser	Asn	Asp	Asp
		195					200						205		
His	Tyr	Arg	Thr	Gly	Thr	Arg	Phe	Ser	Gly	Val	Asp	Met	Asn	Ala	Ala
	210					215						220			
Arg	Leu	Leu	Phe	His	Lys	Leu	Ile	Gln	Pro	Asp	His	Pro	Gln	Ile	Ser

225					230					235					240
Gln	Gln	Val	Ala	Ala	Ser	Leu	Glu	Lys	Asn	Leu	Ile	Pro	Lys	Leu	Thr
				245					250					255	
Ser	Ser	Leu	Pro	Asp	Val	Glu	Ala	Leu	Arg	Phe	Tyr	Leu	Thr	Leu	Pro
			260					265					270		
Glu	Cys	Pro	Leu	Met	Ser	Asp	Ser	Asn	Asn	Phe	Ile	Thr	Ile	Ala	Ile
		275					280					285			
Pro	Phe	Gly	Thr	Ala	Leu	Val	Asn	Leu	Glu	Lys	Ala	Pro	Leu	Lys	Val
	290					295					300				
Leu	Glu	Asn	Trp	Trp	Ser	Val	Leu	Glu	Pro	Pro	Leu	Phe	Leu	Lys	Ile
305					310					315					320
Val	Glu	Leu	Phe	Lys	Glu	Val	Val	Val	His	Leu	Leu	Lys	Leu	Tyr	Lys
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<211> 500

<212> PRT

<213> Homo sapiens

<400> 3550

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 35 40 45
 Ser Lys Glu Lys Glu Arg Ala Ser Leu Asp Lys Lys Arg Asp Lys Asp
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 Tyr Arg Arg Lys Glu Ile Leu Pro Phe Glu Lys Met Lys Glu Gln Arg
 65 70 75 80
 Leu Arg Glu His Leu Val Arg Phe Glu Arg Leu Arg Arg Ala Met Glu
 85 90 95
 Leu Arg Arg Arg Arg Glu Ile Ala Glu Arg Glu Arg Arg Glu Arg Glu
 100 105 110
 Arg Ile Arg Ile Ile Arg Glu Arg Glu Glu Arg Glu Arg Leu Gln Arg
 115 120 125
 Glu Arg Glu Arg Leu Glu Ile Glu Arg Gln Lys Leu Glu Arg Glu Arg
 130 135 140
 Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Ile Arg Ile Glu Gln Glu
 145 150 155 160
 Arg Arg Lys Glu Ala Glu Arg Ile Ala Arg Glu Arg Glu Glu Leu Arg
 165 170 175
 Arg Gln Gln Gln Gln Leu Arg Tyr Glu Gln Glu Lys Arg Asn Ser Leu
 180 185 190
 Lys Arg Pro Arg Asp Val Asp His Arg Arg Asp Asp Pro Tyr Trp Ser
 195 200 205
 Glu Asn Lys Lys Leu Ser Leu Asp Thr Asp Ala Arg Phe Gly His Gly
 210 215 220
 Ser Asp Tyr Ser Arg Gln Gln Asn Arg Phe Asn Asp Phe Asp His Arg
 225 230 235 240
 Glu Arg Gly Arg Phe Pro Glu Ser Ser Ala Val Gln Ser Ser Ser Phe
 245 250 255
 Glu Arg Arg Asp Arg Phe Val Gly Gln Ser Glu Gly Lys Lys Ala Arg
 260 265 270
 Pro Thr Ala Arg Arg Glu Asp Pro Ser Phe Glu Arg Tyr Pro Lys Asn
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 Phe Ser Asp Ser Arg Arg Asn Glu Pro Pro Pro Pro Arg Asn Glu Leu
 290 295 300
 Arg Glu Ser Asp Arg Arg Glu Val Arg Gly Glu Arg Asp Glu Arg Arg
 305 310 315 320
 Thr Val Ile Ile His Asp Arg Pro Asp Ile Thr His Pro Arg His Pro
 325 330 335
 Arg Glu Ala Gly Pro Asn Pro Ser Arg Pro Thr Ser Trp Lys Ser Asp
 340 345 350
 Gly Ser Met Ser Thr Asp Lys Arg Glu Thr Arg Val Glu Arg Pro Glu
 355 360 365
 Arg Ser Gly Arg Glu Val Ser Gly His Ser Val Arg Gly Ala Pro Pro

370	375	380
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385	390	395
Gly Val Ile Thr Asp Arg Gly Gly Gly Ser Gln His Tyr Pro Glu Glu		400
	405	410
Arg His Val Val Glu Arg His Gly Arg Asp Thr Ser Gly Pro Arg Lys		415
	420	425
Glu Trp His Gly Pro Pro Ser Gln Gly Pro Ser Tyr His Asp Thr Arg		430
	435	440
Arg Met Gly Asp Gly Arg Ala Gly Ala Gly Met Ile Thr Gln His Ser		445
	450	455
Ser Asn Ala Ser Pro Ile Asn Arg Ile Val Gln Ile Ser Gly Asn Ser		460
465	470	475
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Pro Arg Arg Phe		495
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<210> 3551

<211> 545

<212> DNA

<213> Homo sapiens

<400> 3551

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180
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300
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<211> 55

<212> PRT

<213> Homo sapiens

<400> 3552

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	20		25		30
Glu	Glu Thr Leu Arg Gln Arg	Leu Glu Glu Leu Lys Lys	Leu Cys Leu		
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Arg	Glu Ala Val Ser Leu Ser				
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<210> 3553
 <211> 1412
 <212> DNA
 <213> Homo sapiens

<400> 3553
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 120
 gatgaccagc tcaacatcct gcccatctcc tcccacgttg ccaccatgga ggcctcgcct
 180
 cccagactc cggatgagag tcttggtctc tctgatctgg agctgaggga gttgaaggag
 240
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 300
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 360
 gcactcacag ctgctcgagg acggggaaaa tctgcagccc tgggattggc gattgctggg
 420
 gcggtggcat ttgggtactc caatatcttt gttacctccc caagccctga taacctccat
 480
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 720
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 780
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 840
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 1320
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 1380
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 1412

<210> 3554

<211> 419

<212> PRT

<213> Homo sapiens

<400> 3554

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		20						25					30		
Ser	Cys	Lys	Lys	Cys	Leu	Val	Ile	Asp	Asp	Gln	Leu	Asn	Ile	Leu	Pro
	35						40					45			
Ile	Ser	Ser	His	Val	Ala	Thr	Met	Glu	Ala	Leu	Pro	Pro	Gln	Thr	Pro
	50					55					60				
Asp	Glu	Ser	Leu	Gly	Pro	Ser	Asp	Leu	Glu	Leu	Arg	Glu	Leu	Lys	Glu
65					70				75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Pro	Val	Gly	Val	Leu	Val	Asp	Cys	Cys	Lys
			85					90						95	
Thr	Leu	Asp	Gln	Ala	Lys	Ala	Val	Leu	Lys	Phe	Ile	Glu	Gly	Ile	Ser
		100						105					110		
Glu	Lys	Thr	Leu	Arg	Ser	Thr	Val	Ala	Leu	Thr	Ala	Ala	Arg	Gly	Arg
	115					120					125				
Gly	Lys	Ser	Ala	Ala	Leu	Gly	Leu	Ala	Ile	Ala	Gly	Ala	Val	Ala	Phe
	130					135					140				
Gly	Tyr	Ser	Asn	Ile	Phe	Val	Thr	Ser	Pro	Ser	Pro	Asp	Asn	Leu	His
145				150					155					160	
Thr	Leu	Phe	Glu	Phe	Val	Phe	Lys	Gly	Phe	Asp	Ala	Leu	Gln	Tyr	Gln
		165						170						175	
Glu	His	Leu	Asp	Tyr	Glu	Ile	Ile	Gln	Ser	Leu	Asn	Pro	Glu	Phe	Asn
		180						185					190		
Lys	Ala	Val	Ile	Ile	Val	Asn	Val	Phe	Arg	Glu	His	Arg	Gln	Thr	Ile
	195					200						205			
Gln	Tyr	Ile	His	Pro	Ala	Asp	Ala	Val	Lys	Leu	Gly	Gln	Ala	Glu	Leu
	210					215					220				
Val	Val	Ile	Asp	Glu	Ala	Ala	Ala	Ile	Pro	Leu	Pro	Leu	Val	Lys	Ser
225					230					235				240	
Leu	Leu	Gly	Pro	Tyr	Leu	Val	Phe	Met	Ala	Ser	Thr	Ile	Asn	Gly	Tyr
			245					250						255	
Glu	Gly	Thr	Gly	Arg	Ser	Leu	Ser	Leu	Lys	Leu	Ile	Gln	Gln	Leu	Arg
		260						265					270		
Gln	Gln	Ser	Ala	Gln	Ser	Gln	Val	Ser	Thr	Thr	Ala	Glu	Asn	Lys	Thr
	275					280						285			
Thr	Thr	Thr	Ala	Arg	Leu	Ala	Ser	Ala	Arg	Thr	Leu	His	Glu	Val	Ser
	290					295					300				
Leu	Gln	Glu	Ser	Ile	Arg	Tyr	Ala	Pro	Gly	Asp	Ala	Val	Glu	Lys	Trp
305				310					315					320	
Leu	Asn	Asp	Leu	Leu	Cys	Leu	Asp	Cys	Leu	Asn	Ile	Thr	Arg	Ile	Val


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          325          330          335
Ser Gly Cys Pro Leu Pro Glu Ala Cys Glu Leu Tyr Tyr Val Asn Arg
          340          345          350
Asp Thr Leu Phe Cys Tyr His Lys Ala Ser Glu Val Phe Leu Gln Arg
          355          360          365
Leu Met Ala Leu Tyr Val Ala Ser His Tyr Lys Asn Ser Pro Asn Asp
          370          375          380
Leu Gln Met Leu Ser Asp Ala Pro Ser His His Leu Phe Cys Leu Leu
385          390          395          400
Pro Pro Val Pro Pro Thr Gln Asn Ala Leu Pro Lys Val Leu Ala Val
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Ile Gln Val

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<210> 3555

<211> 1038

<212> DNA

<213> Homo sapiens

<400> 3555

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120
atgaaccagg cgttgcagag gcgcttcgcc aaggggggtgc agtacaacat gaagatagtg
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<210> 3556

<211> 333

<212> PRT

<213> Homo sapiens

<400> 3556

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Gln	Arg	Arg	Phe	Ala	Lys	Gly	Val	Gln	Tyr	Asn	Met	Lys	Ile	Val	Ile	35	40	45	
Arg	Gly	Asp	Arg	Asn	Thr	Gly	Lys	Thr	Ala	Leu	Trp	His	Arg	Leu	Gln	50	55	60	
Gly	Arg	Pro	Phe	Val	Glu	Glu	Tyr	Ile	Pro	Thr	Gln	Glu	Ile	Gln	Val	65	70	75	80
Thr	Ser	Ile	His	Trp	Ser	Tyr	Lys	Thr	Thr	Asp	Asp	Ile	Val	Lys	Val	85	90	95	
Glu	Val	Trp	Asp	Val	Val	Asp	Lys	Gly	Lys	Cys	Lys	Lys	Arg	Gly	Asp	100	105	110	
Gly	Leu	Lys	Met	Glu	Asn	Asp	Pro	Gln	Glu	Ala	Glu	Ser	Glu	Met	Ala	115	120	125	
Leu	Asp	Ala	Glu	Phe	Leu	Asp	Val	Tyr	Lys	Asn	Cys	Asn	Gly	Val	Val	130	135	140	
Met	Met	Phe	Asp	Ile	Thr	Lys	Gln	Trp	Thr	Phe	Asn	Tyr	Ile	Leu	Arg	145	150	155	160
Glu	Leu	Pro	Lys	Val	Pro	Thr	His	Val	Pro	Val	Cys	Val	Leu	Gly	Asn	165	170	175	
Tyr	Arg	Asp	Met	Gly	Glu	His	Arg	Val	Ile	Xaa	Cys	Arg	Thr	Xaa	Val	180	185	190	
Arg	Asp	Phe	Ile	Asp	Asn	Leu	Asp	Arg	Pro	Pro	Gly	Ser	Ser	Tyr	Phe	195	200	205	
Arg	Tyr	Ala	Glu	Ser	Ser	Met	Lys	Asn	Ser	Phe	Gly	Leu	Lys	Tyr	Leu	210	215	220	
His	Lys	Phe	Phe	Asn	Ile	Pro	Phe	Leu	Gln	Leu	Gln	Arg	Glu	Thr	Leu	225	230	235	240
Leu	Arg	Gln	Leu	Glu	Thr	Asn	Gln	Leu	Asp	Met	Asp	Ala	Thr	Leu	Glu	245	250	255	
Glu	Leu	Ser	Val	Gln	Gln	Glu	Thr	Glu	Asp	Gln	Asn	Tyr	Gly	Ile	Phe	260	265	270	
Leu	Glu	Met	Met	Glu	Ala	Arg	Ser	Arg	Gly	His	Ala	Ser	Pro	Leu	Ala	275	280	285	
Ala	Asn	Gly	Gln	Ser	Pro	Ser	Pro	Gly	Ser	Gln	Ser	Pro	Val	Val	Pro	290	295	300	
Ala	Gly	Ala	Val	Ser	Thr	Gly	Ser	Ser	Ser	Pro	Gly	Thr	Ala	Gln	Pro	305	310	315	320
Ala	Pro	Gln	Leu	Pro	Leu	Asn	Gly	Cys	Pro	Thr	Ile	Leu				325	330		

<210> 3557

<211> 486

<212> DNA

<213> Homo sapiens

<400> 3557

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120
agaaagcaga gtaagtccaa aatccatgca gcacgcagcc tgagtgagat cgccatcgac
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ctgaccgaga cggggacgct gaagacctcg aagctggcca acatgggtag caaggggaag
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486

<210> 3558

<211> 162

<212> PRT

<213> Homo sapiens

<400> 3558

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Trp	Tyr	Ala	Cys	Pro	Ala	Leu	Ile	Lys	Ser	Ile	Trp	Ala	Met	Ala	Ile
			20					25					30		
Ser	Gln	His	Gln	Phe	Tyr	Leu	Asp	Arg	Lys	Gln	Ser	Lys	Ser	Lys	Ile
		35					40					45			
His	Ala	Ala	Arg	Ser	Leu	Ser	Glu	Ile	Ala	Ile	Asp	Leu	Thr	Glu	Thr
		50				55					60				
Gly	Thr	Leu	Lys	Thr	Ser	Lys	Leu	Ala	Asn	Met	Gly	Ser	Lys	Gly	Lys
65				70					75					80	
Ile	Ile	Ser	Gly	Ser	Ser	Gly	Ser	Leu	Leu	Ser	Ser	Gly	Ser	Gly	Ala
			85					90					95		
Arg	Arg	His	Cys	Ile	Leu	Leu	Pro	Gly	Ser	Gln	Glu	Ser	Asp	Ser	Ser
		100						105					110		
Gln	Ser	Ala	Lys	Lys	Asp	Met	Leu	Ala	Ala	Leu	Lys	Ser	Arg	Gln	Glu
		115				120					125				
Ala	Leu	Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Lys	Leu
		130				135					140				
Cys	Leu	Arg	Glu	Ala	Glu	Leu	Thr	Gly	Lys	Leu	Pro	Val	Glu	Tyr	Pro
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Leu	Asp														

<210> 3559

<211> 673

<212> DNA

<213> Homo sapiens

<400> 3559

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 120
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 420
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<210> 3560

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3560

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 Phe Lys Phe Glu Ser Thr Asp Glu Asp Lys Arg Lys Lys Leu Cys Glu
 35 40 45
 Gly Ile Phe Lys Val Leu Ile Lys Asp Ile Pro Thr Thr Cys Gln Val
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 Ser Cys Leu Glu Val Leu Arg Ile Leu Ser Arg Asp Lys Lys Val Leu
 65 70 75 80
 Val Pro Val Thr Thr Lys Glu Asn Met Gln Ile Leu Leu Arg Leu Ala
 85 90 95
 Lys Leu Asn Glu Leu Asp Asp Ser Leu Glu Lys Val Ser Glu Phe Pro
 100 105 110
 Val Ile Val Glu Ser Leu Lys Cys Leu Cys Asn Ile Val Phe Asn Ser
 115 120 125
 Gln Met Ala Gln Gln Leu Ser Leu Glu Leu Asn Leu Ala Ala Lys Leu
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 Cys Asn Leu Leu Arg Lys Cys Lys Asp Arg Lys Phe Ile Asn Asp Ile

145 150 155 160
 Lys Cys Phe Asp Leu Arg Leu Leu Phe Leu Leu Ser Leu Leu His Thr
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 Thr Gln Ile
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<210> 3561
 <211> 523
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Met Glu Gly Trp Ala Gly Ser Gly Gly Val Gly Ser Gln Thr Asp Ser
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 Ala Trp Gly Leu Ala His Gly Val Glu Ala Glu Val Trp Trp Val Phe
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 <211> 359
 <212> DNA
 <213> Homo sapiens

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 35 40 45
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<210> 3565
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 <212> DNA
 <213> Homo sapiens

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<210> 3566

<211> 193

<212> PRT

<213> Homo sapiens

<400> 3566

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<210> 3567

<211> 2811

<212> DNA

<213> Homo sapiens

<400> 3567

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<210> 3568

<211> 869

<212> PRT

<213> Homo sapiens

<400> 3568

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Phe	Gln	Lys	Gln	Leu	Arg	Gly	Gln	Ile	Ala	Arg	Arg	Val	Tyr	Arg	Gln
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Leu	Leu	Ala	Glu	Lys	Arg	Glu	Gln	Glu	Glu	Lys	Lys	Lys	Gln	Glu	Glu
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 145 150 155 160
 Arg Asp Gln Glu Leu Arg Arg Leu Glu Glu Ala Cys Arg Ala Ala
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 180 185 190
 Arg Asn Ile Glu Arg Ser Leu Ser Gly Gly Ser Glu Phe Ser Ser Glu
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 Pro Tyr Pro Glu Glu Glu Val Asp Glu Gly Phe Glu Ala Asp Asp Asp
 225 230 235 240
 Ala Phe Lys Asp Ser Pro Asn Pro Ser Glu His Gly His Ser Asp Gln
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      580      585      590
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Glu Met His His Trp Ile Thr Leu Leu Gln Arg Ser Lys Gly Asp Thr
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Phe Val Leu Thr His Asn Ser Leu Asp Tyr Tyr Lys Ser Ser Glu Lys
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Thr Val Tyr Gly Arg Lys His Cys Tyr Arg Leu Tyr Thr Lys Leu Leu
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Asn Glu Ala Thr Arg Trp Ser Ser Val Ser Gln Asn Val Thr Asp Thr
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Lys Ala Pro Ile Asp Thr Pro Thr Gln Gln Leu Ile Gln Asp Ile Lys
      740      745      750
Glu Asn Cys Leu Asn Ser Asp Val Val Glu Gln Ile Tyr Lys Arg Asn
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Leu Glu Ser Met Ser Asp Pro Ile Pro Ile Ile Gln Gly Ile Leu Gln
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Thr Gly His Asp Leu Arg Pro Leu Arg Asp Glu Leu Tyr Cys Gln Leu
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<210> 3569

<211> 5070

<212> DNA

<213> Homo sapiens

<400> 3569

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<210> 3570

<211> 893

<212> PRT

<213> Homo sapiens

<400> 3570

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			20					25					30		
Arg	Ala	Pro	Ser	Pro	Pro	Trp	Pro	Pro	Gln	Gly	Pro	Leu	Ser	Pro	Gly
		35					40					45			
Pro	Gly	Ser	Leu	Pro	Leu	Ser	Ile	Ala	Arg	Val	Gln	Thr	Pro	Pro	Trp
		50				55					60				
His	Pro	Pro	Gly	Ala	Pro	Ser	Pro	Gly	Leu	Leu	Gln	Asp	Ser	Asp	Ser
65					70				75					80	
Leu	Ser	Gly	Ser	Tyr	Leu	Asp	Pro	Asn	Tyr	Gln	Ser	Ile	Lys	Trp	Gln
				85					90				95		
Pro	His	Gln	Gln	Asn	Lys	Trp	Ala	Thr	Leu	Tyr	Asp	Ala	Asn	Tyr	Lys
			100					105					110		
Glu	Leu	Pro	Met	Leu	Thr	Tyr	Arg	Val	Asp	Ala	Asp	Lys	Gly	Phe	Asn
		115					120					125			
Phe	Ser	Val	Gly	Asp	Asp	Ala	Phe	Val	Cys	Gln	Lys	Lys	Asn	His	Phe
		130				135					140				
Gln	Val	Thr	Val	Tyr	Ile	Gly	Met	Leu	Gly	Glu	Pro	Lys	Tyr	Val	Lys
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Thr	Pro	Glu	Gly	Leu	Lys	Pro	Leu	Asp	Cys	Phe	Tyr	Leu	Lys	Leu	His
				165					170					175	
Gly	Val	Lys	Leu	Glu	Ala	Leu	Asn	Gln	Ser	Ile	Asn	Ile	Glu	Gln	Ser
			180					185					190		
Gln	Ser	Asp	Arg	Ser	Lys	Arg	Pro	Phe	Asn	Pro	Val	Thr	Val	Asn	Leu
		195					200						205		
Pro	Pro	Glu	Gln	Val	Thr	Lys	Val	Thr	Val	Gly	Arg	Leu	His	Phe	Ser
		210				215					220				
Glu	Thr	Thr	Ala	Asn	Asn	Met	Arg	Lys	Lys	Gly	Lys	Pro	Asn	Pro	Asp
225					230					235					240
Gln	Arg	Tyr	Phe	Met	Leu	Val	Val	Ala	Leu	Gln	Ala	His	Ala	Gln	Asn
				245					250					255	
Gln	Asn	Tyr	Thr	Leu	Ala	Ala	Gln	Ile	Ser	Glu	Arg	Ile	Ile	Val	Arg
			260				265						270		
Ala	Ser	Asn	Pro	Gly	Gln	Phe	Glu	Ser	Asp	Ser	Asp	Val	Leu	Trp	Gln
		275					280					285			
Arg	Ala	Gln	Val	Pro	Asp	Thr	Val	Phe	His	His	Gly	Arg	Val	Gly	Ile
		290				295					300				
Asn	Thr	Asp	Arg	Pro	Asp	Glu	Ala	Leu	Val	Val	His	Gly	Asn	Val	Lys
305					310					315					320
Val	Met	Gly	Ser	Leu	Met	His	Pro	Ser	Asp	Leu	Arg	Ala	Lys	Glu	His
				325					330					335	
Val	Gln	Glu	Val	Asp	Thr	Thr	Glu	Gln	Leu	Lys	Arg	Ile	Ser	Arg	Met

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 Arg Leu Val His Tyr Arg Tyr Lys Pro Glu Phe Ala Ala Ser Ala Gly
 355 360 365
 Ile Glu Ala Thr Ala Pro Glu Thr Gly Val Ile Ala Gln Glu Val Lys
 370 375 380
 Glu Ile Leu Pro Glu Ala Val Lys Asp Thr Gly Asp Met Val Phe Ala
 385 390 395 400
 Asn Gly Lys Thr Ile Glu Asn Phe Leu Val Val Asn Lys Glu Arg Ile
 405 410 415
 Phe Met Glu Asn Val Gly Ala Val Lys Glu Leu Cys Lys Leu Thr Asp
 420 425 430
 Asn Leu Glu Thr Arg Ile Asp Glu Leu Glu Arg Trp Ser His Lys Leu
 435 440 445
 Ala Lys Leu Arg Arg Leu Asp Ser Leu Lys Ser Thr Gly Ser Ser Gly
 450 455 460
 Ala Phe Ser His Ala Gly Ser Gln Phe Ser Arg Ala Gly Ser Val Pro
 465 470 475 480
 His Lys Lys Arg Pro Pro Lys Val Ala Ser Lys Ser Ser Ser Val Val
 485 490 495
 Pro Asp Gln Ala Cys Ile Ser Gln Arg Phe Leu Gln Gly Thr Ile Ile
 500 505 510
 Ala Leu Val Val Val Met Ala Phe Ser Val Val Ser Met Ser Thr Leu
 515 520 525
 Tyr Val Leu Ser Leu Arg Thr Glu Glu Asp Leu Val Asp Thr Asp Gly
 530 535 540
 Ser Phe Ala Val Ser Thr Ser Cys Leu Leu Ala Leu Leu Arg Pro Gln
 545 550 555 560
 Pro Pro Gly Gly Ser Glu Ala Leu Cys Pro Trp Ser Ser Gln Ser Phe
 565 570 575
 Gly Thr Thr Gln Leu Arg Gln Ser Pro Leu Thr Thr Gly Leu Pro Gly
 580 585 590
 Ile Gln Pro Ser Leu Leu Leu Val Thr Thr Ser Leu Thr Ser Ser Ala
 595 600 605
 Pro Gly Ser Ala Val Arg Thr Leu Asp Met Cys Ser Ser His Pro Cys
 610 615 620
 Pro Val Ile Cys Cys Ser Ser Pro Thr Thr Asn Pro Thr Thr Gly Pro
 625 630 635 640
 Ser Leu Gly Pro Ser Phe Asn Pro Gly His Val Leu Ser Pro Ser Pro
 645 650 655
 Ser Pro Ser Thr Asn Arg Ser Gly Pro Ser Gln Met Ala Leu Leu Pro
 660 665 670
 Val Thr Asn Ile Arg Ala Lys Ser Trp Gly Leu Ser Val Asn Gly Ile
 675 680 685
 Asp His Ser Lys His His Lys Ser Leu Glu Pro Leu Ala Ser Pro Ala
 690 695 700
 Val Pro Phe Pro Gly Gly Gln Gly Lys Ala Lys Asn Ser Pro Ser Leu
 705 710 715 720
 Gly Phe His Gly Arg Ala Arg Arg Gly Ala Leu Gln Ser Ser Val Gly
 725 730 735
 Pro Ala Glu Pro Thr Trp Ala Gln Gly Gln Ser Ala Ser Leu Leu Ala
 740 745 750
 Glu Pro Val Pro Ser Leu Thr Ser Ile Gln Val Leu Glu Asn Ser Met
 755 760 765
 Ser Ile Thr Ser Gln Tyr Cys Ala Pro Gly Asp Ala Cys Arg Pro Gly


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      770              775              780
Asn Phe Thr Tyr His Ile Pro Val Ser Ser Gly Thr Pro Leu His Leu
785              790              795              800
Ser Leu Thr Leu Gln Met Asn Ser Ser Ser Pro Val Ser Val Val Leu
      805              810              815
Cys Ser Leu Arg Ser Lys Glu Glu Pro Cys Glu Glu Gly Ser Leu Pro
      820              825              830
Gln Ser Leu His Thr His Gln Asp Thr Gln Gly Thr Ser His Arg Trp
      835              840              845
Pro Ile Thr Ile Leu Ser Phe Arg Glu Phe Thr Tyr His Phe Arg Val
      850              855              860
Ala Leu Leu Gly Gln Ala Asn Cys Ser Ser Glu Ala Leu Ala Gln Pro
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<210> 3571

<211> 528

<212> DNA

<213> Homo sapiens

<400> 3571

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240
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360
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420
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<210> 3572

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3572

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20          25          30
Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu
35          40          45
Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His

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50		55		60											
Leu	Leu	Val	Leu	Gly	Leu	Tyr	Leu	Gly	Pro	Gln	Pro	Asp	Ser	Arg	Pro
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Ala	Leu	Leu	Pro	Gln	Val	Ser	Thr	Gln	Val	Ala	Gln	Ala	Ala	Leu	Arg
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Thr	Ala	Leu	Pro	Arg	Ala	Ser	Arg	Leu	Leu	Leu	Gly	Gly	Cys		
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<210> 3573

<211> 1236

<212> DNA

<213> Homo sapiens

<400> 3573

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120
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180
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240
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300
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360
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480
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720
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ggccgggggtg ggagcagggc ctggctccgc cccggggggc gggacaaggg ggctgattcc
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1200

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1236

<210> 3574

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3574

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		20					25					30			
Ile	Asn	Pro	Ser	His	Thr	His	Ser	Pro	Ile	Phe	Ser	Ile	His	Ser	Gly
	35					40					45				
Thr	Cys	Val	Phe	Asn	Lys	Pro	Gly	Gly	His	Thr	Ala	Ser	His	Thr	His
	50				55				60						
Thr	Leu	Thr	Ala	Thr	Asn	Pro	Arg	Ser	His	Ala	His	Ala	Asp	Ala	Pro
65				70				75					80		
Cys	Gly	Thr	Cys	Thr	His	Asn	His	Thr	Cys	Val	Gln	Ser	Gly	Arg	His
			85					90					95		
Thr	His	Thr	Cys	Ile	Glu	Ala	Ser	Leu	Trp	Thr	Pro	Ser	Ala	Ser	His
		100					105					110			
Arg	Gly	Gly	Ser	Pro	Ala	Val	Phe	Asp	Trp	Phe	Phe	Glu	Ala	Ala	Cys
	115					120						125			
Pro	Ala	Ser	Val	Gln	Glu	Asp	Pro	Pro	Ile	Leu	Arg	Gln	Phe	Pro	Pro
	130				135						140				
Asp	Phe	Arg	Asp	Gln	Glu	Ala	Met	Gln	Met	Val	Pro	Lys	Phe	Cys	Phe
145				150					155					160	
Pro	Phe	Asp	Val	Glu	Arg	Gly	Pro	Pro	Ser	Pro	Ala	Val	Gln	His	Phe
			165				170						175		
Thr	Phe	Ala	Leu	Thr	Asp	Leu	Ala	Gly	Asn	Arg	Arg	Phe	Gly	Phe	Cys
		180					185					190			
Arg	Leu	Arg	Ala	Gly	Thr	Gln	Ser	Cys	Leu	Cys	Ile	Leu	Ser	His	Leu
	195					200						205			
Pro	Trp	Phe	Glu	Val	Phe	Tyr	Lys	Leu	Leu	Asn	Thr	Val	Gly	Asp	Leu
	210				215						220				
Leu	Ala	Gln	Asp	Gln	Val	Thr	Glu	Ala	Glu	Glu	Leu	Leu	Gln	Asn	Leu
225				230					235					240	
Phe	Gln	Gln	Ser	Leu	Ser	Gly	Pro	Gln	Ala	Ser	Val	Gly	Leu	Glu	Leu
			245					250					255		
Gly	Ser	Gly	Val	Thr	Val	Ser	Ser	Gly	Gln	Gly	Ile	Pro	Pro	Pro	Thr
	260						265					270			
Arg	Gly	Asn	Ser	Lys	Pro	Leu	Ser	Cys	Phe	Val	Ala	Pro	Asp	Ser	Gly
	275					280						285			
Arg	Leu	Pro	Ser	Ile	Pro	Glu	Asn	Arg	Asn	Leu	Thr	Glu	Leu	Val	Val
	290				295						300				
Ala	Val	Thr	Asp	Glu	Asn	Ile	Val	Gly	Leu	Phe	Ala	Ala	Leu	Leu	Ala
305				310					315					320	
Glu	Arg	Arg	Val	Leu	Leu	Thr	Ala	Ser	Lys	Leu	Ser	Thr	Leu	Arg	Arg
			325					330					335		
Gly	Pro	Pro	Gly	Arg	Gly	Gly	Ser	Arg	Ala	Trp	Leu	Arg	Pro	Gly	Gly
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355

360

<210> 3575
 <211> 769
 <212> DNA
 <213> Homo sapiens

<400> 3575
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 120
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 180
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 240
 cactagaagg caccatgtaa cttgctggat ttggagtgtg acttcttctt ctgggagcag
 300
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 360
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 420
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 480
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 540
 atgtaaagtt tcttttttca aatgtactta tttccaaata tgtagcaga tttactgcaa
 600
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 660
 atttaataaa ttaatggaag agtgggaagt aacagaattg tggctcttta taaaattatg
 720
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<210> 3576
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 3576
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 Ser Thr Thr Lys Gln Asp Lys Ile Ile Ser Phe Ile Phe Ala Leu Thr
 35 40 45
 Ile Pro Lys Met Met Phe Leu Pro Asn Glu Cys Leu His Phe Ile Phe
 50 55 60
 Gln Thr Cys Ser Leu Lys Pro Ile Ile Ala Pro Leu Arg Asn Ile Phe
 65 70 75 80
 Thr Ser Ser Ser Gly Met Ser Leu Ser Ala Gly Ser Ser Pro Leu His
 85 90 95
 Ser Pro Lys Ile Thr Pro His Thr Ser Pro Ala Pro Arg Arg Arg Ser

100							105					110				
His	Thr	Pro	Asn	Pro	Ala	Ser	Tyr	Met	Val	Pro	Ser	Ser	Ala	Ser	Thr	
115							120					125				
Ser	Val	Asn	Asn	Pro	Val	Ser	Gln	Thr	Pro	Ser	Ser	Gly	Gln	Val	Ile	
130							135					140				
Gln	Lys	Glu	Thr	Val	Gly	Gly	Thr	Thr	Tyr	Phe	Tyr	Thr	Asp	Thr	Thr	
145							150					155				
Pro	Ala	Pro	Leu	Thr	Gly	Met	Val	Phe	Pro	Asn	Tyr	His	Ile	Tyr	Pro	
165							170					175				
Pro	Thr	Ala	Pro	His	Val	Ala	Tyr	Met	Gln	Pro	Lys	Ala	Asn	Ala	Pro	
180							185					190				
Ser	Phe	Phe	Met	Ala	Asp	Glu	Leu	Arg	Gln	Glu	Leu	Ile				
195							200					205				

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<210> 3577
<211> 1225
<212> DNA
<213> Homo sapiens
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180
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360
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420
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480
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720
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780
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840
tcatgagcca accctcaaag gaccctgatt acagtgccac gttggaaaac gctacaggaa
900
gcatgacctt tccacatctt tccaagatag acactaacat gtcatgtccc aaacattagc
960
acgtgggggt tgagctctgt gcagtaatcg agattgggag aatttgggca gcgcgtgaga
1020

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agtgctaagc tacttgtttt ctcaacttgag cccgggtagg ctgtgttggc cctcaacttgg
 1080
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 1200
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 1225

<210> 3578
 <211> 195
 <212> PRT
 <213> Homo sapiens

<400> 3578
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 20 25 30
 Ile Ser Glu His Phe His Pro Thr Val Ile Gly Glu Ser Met Tyr Gly
 35 40 45
 Asp Phe Glu Glu Ala Phe Asp His Leu Gln Asn Arg Leu Ile Ala Thr
 50 55 60
 Lys Asn Pro Glu Glu Ile Arg Gly Gly Gly Leu Leu Lys Tyr Ser Asn
 65 70 75 80
 Leu Leu Val Arg Asp Phe Arg Pro Thr Asp Gln Glu Glu Ile Lys Thr
 85 90 95
 Leu Glu Arg Tyr Met Cys Ser Arg Phe Phe Ile Asp Phe Pro Asp Ile
 100 105 110
 Leu Glu Gln Gln Arg Lys Leu Glu Thr Tyr Leu Gln Asn His Phe Ala
 115 120 125
 Glu Glu Glu Arg Ser Lys Tyr Asp Tyr Leu Met Ile Leu Arg Arg Val
 130 135 140
 Val Asn Glu Ser Thr Val Cys Leu Met Gly His Glu Arg Arg Gln Thr
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 Leu Asn Leu Ile Ser Leu Leu Ala Leu Arg Val Leu Gly Gly Thr Lys
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<210> 3579
 <211> 755
 <212> DNA
 <213> Homo sapiens

<400> 3579
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 660
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<210> 3580

<211> 121

<212> PRT

<213> Homo sapiens

<400> 3580

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			20					25					30		
Glu	Thr	Lys	Gln	His	Glu	Lys	Trp	Leu	Ser	Gln	Pro	Thr	Cys	Ser	Asp
		35				40					45				
Met	Pro	Arg	Asn	Phe	Ser	Ser	Gly	Pro	Gly	Ser	Gly	Gly	Leu	Leu	Ile
	50					55					60				
Phe	Ser	Gln	Asp	Ile	Val	Leu	Ser	Trp	Asn	Leu	Ala	Gly	Gly	Trp	Ser
65				70				75						80	
Ile	Cys	Ile	Trp	Ser	Ile	Ala	Arg	Leu	Ser	His	Leu	Ser	Ser	Asp	Gln
				85				90						95	
Lys	Cys	Ile	Ser	Lys	Ile	Ile	Thr	Ser	Thr	Lys	Thr	Ile	Ile	Asp	Cys
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<210> 3581

<211> 2132

<212> DNA

<213> Homo sapiens

<400> 3581

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<210> 3582

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3582

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Pro	Arg	Thr	Gly	Cys	Thr	Thr	Ala	Ser	Ala	Cys	Ser	Thr	Gly	Thr	Cys
			20					25					30		
Ala	Ala	Pro	Gly	Val	Ala	Pro	Arg	Gly	Ala	Cys	Trp	Thr	Cys	Thr	Arg
		35					40					45			
Arg	Ala	Ser	Ser	Ala	Cys	Thr	Arg	Arg	Gly	Thr	Ala	Ala	Ala	Trp	Ser
	50					55					60				
Ser	Arg	Pro	Arg	Pro	Ser	Thr	Thr	Ala	Thr	Ser	Arg	Cys	Ser	Ser	Ala
65					70					75				80	
Arg	Trp	Arg	Arg	Arg	Thr	Arg	Gly	Cys	Thr	Pro	Ala	Thr	Cys	Thr	Ile
			85					90					95		
Thr	Thr	Ala	Thr	Ser	Thr	Arg	Ala	Trp	Pro	Ser	Ala	Trp	Arg	Ser	Pro
			100					105					110		
Thr	Ala	Pro	Arg	Pro	Pro	Pro	Pro	Thr	Gly	Thr	Ala	Arg	Arg	Arg	Cys
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Trp	Arg	Trp	Arg	Ala	Ala	His	Pro	Arg	Phe						
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<210> 3583

<211> 1554

<212> DNA

<213> Homo sapiens

<400> 3583

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<210> 3584

<211> 356

<212> PRT

<213> Homo sapiens

<400> 3584

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Gly	Asp	Glu	Ser	Ser	Ala	Pro	Asp	Ser	Gln	Arg	Ser	Gln	Thr	Glu	Pro
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Ala	Arg	Glu	Arg	Lys	Arg	Lys	Lys	Arg	Arg	Ile	Met	Lys	Ala	Pro	Ala
65					70					75				80	
Ala	Glu	Ala	Val	Ala	Glu	Gly	Ala	Ser	Gly	Arg	His	Gly	Gln	Gly	Arg
				85					90				95		
Ser	Leu	Glu	Ala	Glu	Asp	Lys	Met	Thr	His	Arg	Ile	Leu	Arg	Ala	Ala
			100					105					110		
Gln	Glu	Gly	Asp	Leu	Pro	Glu	Leu	Arg	Arg	Leu	Leu	Glu	Pro	His	Glu
	115						120					125			
Ala	Gly	Gly	Ala	Gly	Gly	Asn	Ile	Asn	Ala	Arg	Asp	Ala	Phe	Trp	Trp
130					135					140					
Thr	Pro	Leu	Met	Cys	Ala	Ala	Arg	Ala	Gly	Gln	Gly	Ala	Ala	Val	Ser
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Tyr	Leu	Leu	Gly	Arg	Gly	Ala	Ala	Trp	Val	Gly	Val	Cys	Glu	Leu	Ser
				165					170					175	
Gly	Arg	Asp	Ala	Ala	Gln	Leu	Ala	Glu	Glu	Ala	Gly	Phe	Pro	Glu	Val
			180					185					190		
Ala	Arg	Met	Val	Arg	Glu	Ser	His	Gly	Glu	Thr	Arg	Ser	Pro	Glu	Asn
	195						200					205			
Arg	Ser	Pro	Thr	Pro	Ser	Leu	Gln	Tyr	Cys	Glu	Asn	Cys	Asp	Thr	His
	210					215					220				
Phe	Gln	Asp	Ser	Asn	His	Arg	Thr	Ser	Thr	Ala	His	Leu	Leu	Ser	Leu
225					230					235				240	
Ser	Gln	Gly	Pro	Gln	Pro	Pro	Asn	Leu	Pro	Leu	Gly	Val	Pro	Ile	Ser
			245					250					255		
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		260						265					270		
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Leu	Lys	Arg	Asp	Gln	Glu	Gly	Leu	Gly	Tyr	Arg	Ser	Ala	Pro	Gln	Pro
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Arg	Val	Thr	His	Phe	Pro	Ala	Trp	Asp	Thr	Arg	Ala	Val	Ala	Gly	Arg
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Glu	Arg	Pro	Pro	Arg	Val	Ala	Thr	Leu	Ser	Trp	Arg	Glu	Glu	Arg	Arg
				325				330						335	
Arg	Glu	Glu	Lys	Asp	Arg	Ala	Trp	Glu	Arg	Asp	Leu	Arg	Thr	Tyr	Met
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<210> 3585

<211> 2782

<212> DNA

<213> Homo sapiens

<400> 3585

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<210> 3586

<211> 663

<212> PRT

<213> Homo sapiens

<400> 3586

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			20					25					30		
Arg	Ser	Cys	Trp	Arg	Lys	Trp	Lys	Gln	Leu	Ser	Arg	Leu	Gln	Arg	Asn
		35					40					45			
Met	Ile	Leu	Phe	Leu	Leu	Ala	Phe	Leu	Leu	Phe	Cys	Gly	Leu	Leu	Phe
	50					55					60				
Tyr	Ile	Asn	Leu	Ala	Asp	His	Trp	Lys	Ala	Leu	Ala	Phe	Arg	Leu	Glu
65					70					75				80	
Glu	Glu	Gln	Lys	Met	Arg	Pro	Glu	Ile	Ala	Gly	Leu	Lys	Pro	Ala	Asn

				85				90				95			
Pro	Pro	Val	Leu	Pro	Ala	Pro	Gln	Lys	Ala	Asp	Thr	Asp	Pro	Glu	Asn
				100				105				110			
Leu	Pro	Glu	Ile	Ser	Ser	Gln	Lys	Thr	Gln	Arg	His	Ile	Gln	Arg	Gly
				115				120				125			
Pro	Pro	His	Leu	Gln	Ile	Arg	Pro	Pro	Ser	Gln	Asp	Leu	Lys	Asp	Gly
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Thr	Gln	Glu	Glu	Ala	Thr	Lys	Arg	Gln	Glu	Ala	Pro	Val	Asp	Pro	Arg
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Pro	Glu	Gly	Asp	Pro	Gln	Arg	Thr	Val	Ile	Ser	Trp	Arg	Gly	Ala	Val
				165				170				175			
Ile	Glu	Pro	Glu	Gln	Gly	Thr	Glu	Leu	Pro	Ser	Arg	Arg	Ala	Glu	Val
				180				185				190			
Pro	Thr	Lys	Pro	Pro	Leu	Pro	Pro	Ala	Arg	Thr	Gln	Gly	Thr	Pro	Val
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His	Leu	Asn	Tyr	Arg	Gln	Lys	Gly	Val	Ile	Asp	Val	Phe	Leu	His	Ala
				210				215				220			
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Ser	Ala	Tyr	His	Leu	Ser	Gly	Asp	Ser	Leu	Phe	Leu	Arg	Lys	Ala	Glu
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Pro	Tyr	Ser	Asp	Val	Asn	Ile	Gly	Thr	Gly	Val	Ala	His	Pro	Pro	Arg
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Trp	Thr	Ser	Asp	Ser	Thr	Val	Ala	Glu	Val	Thr	Ser	Ile	Gln	Leu	Glu
				355				360				365			
Phe	Arg	Glu	Leu	Ser	Arg	Leu	Thr	Gly	Asp	Lys	Lys	Phe	Gln	Glu	Ala
				370				375				380			
Val	Glu	Lys	Val	Thr	Gln	His	Ile	His	Gly	Leu	Ser	Gly	Lys	Lys	Asp
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Arg	Phe	Ser	Ala	Lys	Met	Asp	His	Leu	Val	Cys	Phe	Leu	Pro	Gly	Thr
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Leu	Ala	Leu	Gly	Val	Tyr	His	Gly	Leu	Pro	Ala	Ser	His	Met	Glu	Leu
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545      550      555      560
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Asp Arg Lys Tyr Gln Asp Trp Gly Trp Glu Ile Leu Gln Ser Phe Ser
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Arg Phe Thr Arg Val Pro Ser Gly Gly Tyr Ser Ser Ile Asn Asn Val
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Gln Asp Pro Gln Lys Pro Glu Pro Arg Asp Lys Met Glu Ser Phe Phe
610      615      620
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<210> 3587

<211> 3148

<212> DNA

<213> Homo sapiens

<400> 3587

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<210> 3588

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3588

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			20				25					30			
Glu	Asp	Val	Gln	Glu	Glu	Thr	Gln	Leu	Asp	Leu	Ser	Gly	Asp	Ser	Val
			35				40					45			
Lys	Thr	Ile	Ala	Lys	Leu	Trp	Asp	Ser	Lys	Met	Phe	Ala	Glu	Ile	Met
			50				55				60				
Met	Lys	Ile	Glu	Glu	Tyr	Ile	Ser	Lys	Gln	Ala	Lys	Ala	Ser	Glu	Val
65					70				75					80	
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			85						90					95	
Asn	Asn	Leu	Thr	Val	Glu	Ile	Glu	Asn	Glu	Leu	Asn	Ile	Ile	His	Lys
			100					105				110			
Phe	Ile	Arg	Asp	Lys	Tyr	Ser	Lys	Arg	Phe	Pro	Glu	Leu	Glu	Ser	Leu
			115				120				125				
Val	Pro	Asn	Ala	Leu	Asp	Tyr	Ile	Arg	Thr	Val	Lys	Glu	Leu	Gly	Asn
			130			135					140				
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			165					170						175	
Gln	Gln	Leu	Ser	Glu	Glu	Glu	Leu	Glu	Arg	Leu	Glu	Glu	Ala	Cys	Asp

2750

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<210> 3590

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3590

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		20					25						30		
Asp	Pro	Met	Ser	Pro	Phe	His	Leu	Ser	Ser	Val	Ile	Leu	Cys	Arg	Pro
		35				40						45			
Ser	Ala	Trp	Pro	Cys	Leu	Arg	Ser	Ser	Pro	Pro	Ala	Ala	Gln	Gly	
	50				55					60					
Ser	Phe	Val	Ser	Ala	Gln	Glu	Gly	Pro	Tyr	Asn	Pro	Ser	Trp	Leu	Trp
65				70				75					80		
Pro	Gly	Pro	Cys	Phe	Val	Ser	Glu	Leu	Gly	Gly	Pro	Ile	Pro	Lys	His
			85				90						95		
Trp	Leu	Gly	Asn	Ser	Tyr	Pro	Ile	Cys	Cys	Leu	Gly	Ser	Ala	Trp	Phe
			100				105						110		
Phe	Thr	His	Ile	Ser											
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<210> 3591

<211> 669

<212> DNA

<213> Homo sapiens

<400> 3591

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<211> 223

<212> PRT

<213> Homo sapiens

<400> 3592

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Lys	Gln	Val	Asn	Trp	Lys	Ala	Cys	Arg	Trp	Ser	Ser	Ser	Gly	Val	Ile
		35					40					45			
Pro	Asn	Glu	Lys	Ile	Arg	Asn	Ile	Gly	Ile	Ser	Ala	His	Ile	Asp	Ser
	50					55					60				
Gly	Lys	Thr	Thr	Leu	Thr	Glu	Arg	Val	Leu	Tyr	Tyr	Thr	Gly	Arg	Ile
65					70					75				80	
Ala	Lys	Met	His	Glu	Val	Lys	Gly	Lys	Asp	Gly	Val	Gly	Ala	Val	Met
			85					90						95	
Asp	Ser	Met	Glu	Leu	Glu	Arg	Gln	Arg	Gly	Ile	Thr	Ile	Gln	Ser	Ala
		100						105					110		
Ala	Thr	Tyr	Thr	Met	Trp	Lys	Asp	Val	Asn	Ile	Asn	Ile	Ile	Asp	Thr
		115					120					125			
Pro	Gly	His	Val	Asp	Phe	Thr	Ile	Glu	Val	Glu	Arg	Ala	Leu	Arg	Val
	130					135					140				
Leu	Asp	Gly	Ala	Val	Leu	Val	Leu	Cys	Ala	Val	Gly	Gly	Val	Gln	Cys
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Gln	Thr	Met	Thr	Val	Asn	Arg	Gln	Met	Lys	Arg	Tyr	Asn	Val	Pro	Phe
			165					170						175	
Leu	Thr	Phe	Ile	Asn	Lys	Leu	Asp	Arg	Met	Gly	Ser	Asn	Pro	Ala	Arg
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<210> 3593
 <211> 1005
 <212> DNA
 <213> Homo sapiens

<400> 3593
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<210> 3594
 <211> 282
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Leu Leu Gly Ala Leu Cys Leu Gln Arg Pro Pro Val Val Ser Lys

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	85	90
Glu Asn Gln Arg Leu Ala Lys Lys Lys Ala Asp Leu His Asp Glu Glu		95
	100	105
Asp Glu Gln Asp Ile Leu Leu Ala Gln Asp Leu Glu Asp Met Trp Glu		110
	115	120
Gln Lys Phe Leu Gln Phe Lys Leu Gly Ala Arg Ile Thr Glu Ala Asp		125
	130	135
Glu Lys Asn Asp Arg Thr Ser Leu Asn Arg Lys Leu Asp Arg Asn Leu		140
	145	150
Val Leu Leu Val Arg Glu Lys Phe Gly Asp Gln Asp Val Trp Ile Leu		155
	165	170
Pro Gln Ala Glu Trp Gln Pro Gly Glu Thr Leu Arg Gly Thr Ala Glu		175
	180	185
Arg Thr Leu Ala Thr Leu Ser Glu Asn Asn Met Glu Ala Lys Phe Leu		190
	195	200
Gly Asn Ala Pro Cys Gly His Tyr Thr Phe Lys Phe Pro Gln Ala Met		205
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Arg Thr Glu Ser Asn Leu Gly Ala Lys Val Phe Phe Phe Lys Ala Leu		220
	225	230
Leu Leu Thr Gly Asp Phe Ser Gln Ala Gly Asn Lys Gly His His Val		235
	245	250
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<211> 1903

<212> DNA

<213> Homo sapiens

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<210> 3596

<211> 496

<212> PRT

<213> Homo sapiens

<400> 3596

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Ala His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro Ile			
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Val Glu Ser Tyr Ile Gly Phe Ile Glu Ser Tyr Arg Asp Pro Phe Gly			
65	70	75	80
Ser Arg Gly Glu Phe Glu Gly Phe Val Ala Val Val Asn Lys Ala Met			
85	90	95	
Ser Ala Lys Phe Glu Arg Leu Val Ala Ser Ala Glu Gln Leu Leu Lys			
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Glu Leu Pro Trp Pro Pro Thr Phe Glu Lys Asp Lys Phe Leu Thr Pro			
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Asp Phe Thr Ser Leu Asp Val Leu Thr Phe Ala Gly Ser Gly Ile Pro			
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Ala Gly Ile Asn Ile Pro Asn Tyr Asp Asp Leu Arg Gln Thr Glu Gly			
145	150	155	160
Phe Lys Asn Val Ser Leu Gly Asn Val Leu Ala Val Ala Tyr Ala Thr			
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Gln Arg Glu Lys Leu Thr Phe Leu Glu Glu Asp Asp Lys Asp Leu Tyr			
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Ile Leu Trp Lys Gly Pro Ser Phe Asp Val Gln Val Gly Leu His Glu			
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Leu Leu Gly His Gly Ser Gly Lys Leu Phe Val Gln Asp Glu Lys Gly			
210	215	220	
Ala Phe Asn Phe Asp Gln Glu Thr Val Ile Asn Pro Glu Thr Gly Glu			
225	230	235	240
Gln Ile Gln Ser Trp Tyr Arg Ser Gly Glu Thr Trp Asp Ser Lys Phe			
245	250	255	
Ser Thr Ile Ala Ser Ser Tyr Glu Glu Cys Arg Ala Glu Ser Val Gly			
260	265	270	
Leu Tyr Leu Cys Leu His Pro Gln Val Leu Glu Ile Phe Gly Phe Glu			
275	280	285	
Gly Ala Asp Ala Glu Asp Val Ile Tyr Val Asn Trp Leu Asn Met Val			
290	295	300	
Arg Ala Gly Leu Leu Ala Leu Glu Phe Tyr Thr Pro Glu Ala Phe Asn			
305	310	315	320
Trp Arg Gln Ala His Met Gln Ala Arg Phe Val Ile Leu Arg Val Leu			
325	330	335	
Leu Glu Ala Gly Glu Gly Leu Val Thr Ile Thr Pro Thr Thr Gly Ser			
340	345	350	
Asp Gly Arg Pro Asp Ala Arg Val Arg Leu Asp Arg Ser Lys Ile Arg			
355	360	365	
Ser Val Gly Lys Pro Ala Leu Glu Arg Phe Leu Arg Arg Leu Gln Val			
370	375	380	
Leu Lys Ser Thr Gly Asp Val Ala Gly Gly Arg Ala Leu Tyr Glu Gly			
385	390	395	400
Tyr Ala Thr Val Thr Asp Ala Pro Pro Glu Cys Phe Leu Thr Leu Arg			
405	410	415	
Asp Thr Val Leu Arg Lys Glu Ser Arg Lys Leu Ile Val Gln Pro			
420	425	430	
Asn Thr Arg Leu Glu Gly Asn Gly Ser Asp Val Gln Leu Leu Glu Tyr			

	435		440		445										
Glu	Ala	Ser	Ala	Ala	Gly	Leu	Ile	Arg	Ser	Phe	Ser	Glu	Arg	Phe	Pro
	450		455		460										
Glu	Asp	Gly	Pro	Glu	Leu	Glu	Glu	Ile	Leu	Thr	Gln	Leu	Ala	Thr	Ala
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<210> 3597

<211> 1090

<212> DNA

<213> Homo sapiens

<400> 3597

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<210> 3598

<211> 159
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Lys Thr Ala Leu Pro Phe Asn Arg Phe Leu Pro Asn Lys Ser Arg
 50 55 60
 Gln Pro Ser Tyr Val Pro Ala Pro Leu Arg Lys Lys Lys Pro Asp Lys
 65 70 75 80
 His Glu Asp Asn Arg Arg Ser Trp Ala Ser Pro Val Tyr Thr Glu Ala
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 Asp Gly Thr Phe Ser Arg Ser Lys Ser Met Ser Asp Val Ser Ala Glu
 100 105 110
 Asp Val Gln Asn Leu Arg Gln Leu Arg Tyr Glu Glu Met Gln Lys Ile
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<210> 3599
 <211> 691
 <212> DNA
 <213> Homo sapiens

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<210> 3600

<211> 98

<212> PRT

<213> Homo sapiens

<400> 3600

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			20					25					30		
Met	Val	Glu	Val	Arg	Ser	Trp	Ser	Gly	Ser	Leu	Val	Gly	Trp	Leu	Ala
		35					40					45			
Pro	Arg	Pro	Leu	Ser	Val	Pro	Ile	Glu	His	Leu	Leu	Gly	Ala	Lys	Asn
		50				55					60				
Cys	Cys	Arg	His	Gly	Gly	Gln	Trp	Val	Arg	Arg	Ala	Val	Pro	Ala	Val
65				70					75					80	
Leu	Ser	Leu	Val	Gly	Ala	Ser	Ser	Leu	His	His	Ala	Val	Tyr	Leu	Phe
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Leu	Leu														

<210> 3601

<211> 2963

<212> DNA

<213> Homo sapiens

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<211> 299

<212> PRT

<213> Homo sapiens

<400> 3602

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			20					25					30		
Glu	Ala	Arg	Glu	Leu	Met	Tyr	Ser	Gly	Ala	Leu	Leu	Phe	Phe	Ser	His
			35					40					45		
Gly	Gln	Gln	Asn	Ser	Ala	Ala	Asp	Leu	Ser	Met	Leu	Val	Leu	Glu	Ser
			50					55					60		
Leu	Glu	Lys	Ala	Glu	Val	Glu	Val	Ala	Asp	Glu	Leu	Leu	Glu	Asn	Leu
Ala	Lys	Val	Phe	Ser	Leu	Met	Asp	Pro	Asn	Ser	Pro	Glu	Arg	Val	Thr
Phe	Val	Ser	Arg	Ala	Leu	Lys	Trp	Ser	Ser	Gly	Gly	Ser	Gly	Lys	Leu
Gly	His	Pro	Arg	Leu	His	Gln	Leu	Leu	Ala	Leu	Thr	Leu	Trp	Lys	Glu
Gln	Asn	Tyr	Cys	Glu	Ser	Arg	Tyr	His	Phe	Leu	His	Ser	Ala	Asp	Gly
Glu	Gly	Cys	Ala	Asn	Met	Leu	Val	Glu	Tyr	Ser	Thr	Ser	Arg	Gly	Phe
Arg	Ser	Glu	Val	Asp	Met	Phe	Val	Ala	Gln	Ala	Val	Leu	Gln	Phe	Leu
Cys	Leu	Lys	Asn	Lys	Ser	Ser	Ala	Ser	Val	Val	Phe	Thr	Thr	Tyr	Thr
Gln	Lys	His	Pro	Ser	Ile	Glu	Asp	Gly	Pro	Pro	Phe	Val	Glu	Pro	Leu

195					200					205						
Leu	Asn	Phe	Ile	Trp	Phe	Leu	Leu	Leu	Ala	Val	Asp	Gly	Gly	Lys	Leu	
210					215					220						
Thr	Val	Phe	Thr	Val	Leu	Cys	Glu	Gln	Tyr	Gln	Pro	Ser	Leu	Arg	Arg	
225					230					235					240	
Asp	Pro	Met	Tyr	Asn	Glu	Tyr	Leu	Asp	Arg	Ile	Gly	Gln	Leu	Phe	Phe	
245					250					255						
Gly	Val	Pro	Pro	Lys	Gln	Thr	Ser	Ser	Tyr	Gly	Gly	Leu	Leu	Gly	Asn	
260					265					270						
Leu	Leu	Thr	Ser	Leu	Met	Gly	Ser	Ser	Glu	Gln	Glu	Asp	Gly	Glu	Glu	
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Ser	Pro	Ser	Asp	Gly	Ser	Pro	Ile	Glu	Leu	Asp						
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<210> 3603
<211> 1082
<212> DNA
<213> Homo sapiens
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 1082

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 <211> 146
 <212> PRT
 <213> Homo sapiens

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 Val Ala Ala Gln Glu Glu Pro Asp Lys Glu Gly Lys Glu Lys Pro His
 35 40 45
 Ala Gly Val Ser Pro Arg Gly Val Lys Arg Gln Arg Arg Ser Ser Ser
 50 55 60
 Gly Gly Ser Gln Glu Lys Arg Gly Arg Pro Ser Gln Glu Pro Pro Leu
 65 70 75 80
 Ala Pro Pro His Arg Arg Arg Arg Ser Arg Gln His Pro Gly Pro Leu
 85 90 95
 Pro Pro Thr Asn Ala Ala Pro Thr Val Pro Gly Pro Val Glu Pro Leu
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 Leu Leu Pro Pro Pro Pro Pro Ser Leu Ala Pro Ala Gly Pro Ala
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 Val Ala Ala Pro Leu Pro Ala Pro Ser Thr Arg Pro Ser Ser Pro Ser
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 145

<210> 3605
 <211> 2004
 <212> DNA
 <213> Homo sapiens

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<210> 3606

<211> 324

<212> PRT

<213> Homo sapiens

<400> 3606

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Lys Gly Asp Tyr Tyr Glu Ala His Gln Met Tyr Arg Thr Leu Phe Phe
          35           40           45
Arg Tyr Met Ser Gln Ser Lys His Thr Glu Ala Arg Glu Leu Met Tyr
          50           55           60
Ser Gly Ala Leu Leu Phe Phe Ser His Gly Gln Gln Asn Ser Ala Ala
65           70           75           80
Asp Leu Ser Met Leu Val Leu Glu Ser Leu Glu Lys Ala Glu Val Glu
          85           90           95
Val Ala Asp Glu Leu Leu Glu Asn Leu Ala Lys Val Phe Ser Leu Met
          100          105          110
Asp Pro Asn Ser Pro Glu Arg Val Thr Phe Val Ser Arg Ala Leu Lys
          115          120          125
Trp Ser Ser Gly Gly Ser Gly Lys Leu Gly His Pro Arg Leu His Gln
          130          135          140
Leu Leu Ala Leu Thr Leu Trp Lys Glu Gln Asn Tyr Cys Glu Ser Arg
145          150          155          160
Tyr His Phe Leu His Ser Ala Asp Gly Glu Gly Cys Ala Asn Met Leu
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Val Glu Tyr Ser Thr Ser Arg Gly Phe Arg Ser Glu Val Asp Met Phe
          180          185          190
Val Ala Gln Ala Val Leu Gln Phe Leu Cys Leu Lys Asn Lys Ser Ser
          195          200          205
Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro Ser Ile Glu
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Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile Trp Phe Leu
225          230          235          240
Leu Leu Ala Val Asp Gly Gly Lys Leu Thr Val Phe Thr Val Leu Cys
          245          250          255
Glu Gln Tyr Gln Pro Ser Leu Arg Arg Asp Pro Met Tyr Asn Glu Tyr
          260          265          270
Leu Asp Arg Ile Gly Gln Leu Phe Phe Gly Val Pro Pro Lys Gln Thr
          275          280          285
Ser Ser Tyr Gly Gly Leu Leu Gly Asn Leu Leu Thr Ser Leu Met Gly
          290          295          300
Ser Ser Glu Gln Glu Asp Gly Glu Glu Ser Pro Ser Asp Gly Ser Pro
305          310          315          320
Ile Glu Leu Asp

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<210> 3607

<211> 1726

<212> DNA

<213> Homo sapiens

<400> 3607

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120
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180
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240
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300
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360
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420
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480
gctcatgact attggtgggc tgagcaccag aaaacctgtg gaggcactta cataaaaatc
540
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600
gtattggccg cagagaataa agataaaccc aacagagggtg aggccagct agtaatccct
660
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720
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780
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840
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900
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960
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1020
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1260
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1560
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1620

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 1726

<210> 3608

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3608

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Phe	Val	Gln	Phe	Asn	Asp	Gln	Phe	Phe	Trp	Gly	Gln	Leu	Glu	Ala	Val
			20					25				30			
Glu	Val	Lys	Trp	Ser	Val	Arg	Met	Thr	Leu	Cys	Ala	Gly	Ile	Cys	Ser
		35					40					45			
Tyr	Glu	Gly	Lys	Gly	Gly	Met	Cys	Ser	Ile	Arg	Leu	Ser	Glu	Pro	Leu
	50					55					60				
Leu	Lys	Leu	Arg	Pro	Arg	Lys	Asp	Leu	Val	Glu	Thr	Leu	Leu	His	Glu
65					70					75				80	
Met	Ile	His	Ala	Tyr	Leu	Phe	Val	Thr	Asn	Asn	Asp	Lys	Asp	Arg	Glu
			85						90					95	
Gly	His	Gly	Pro	Glu	Phe	Cys	Lys	His	Met	His	Arg	Ile	Asn	Ser	Leu
			100					105					110		
Thr	Gly	Ala	Asn	Ile	Thr	Val	Tyr	His	Thr	Phe	His	Asp	Glu	Val	Asp
		115					120					125			
Glu	Tyr	Arg	Arg	His	Trp	Trp	Arg	Cys	Asn	Gly	Pro	Cys	Gln	His	Arg
	130					135					140				
Pro	Pro	Tyr	Tyr	Gly	Tyr	Val	Lys	Arg	Ala	Thr	Asn	Arg	Glu	Pro	Ser
145					150					155				160	
Ala	His	Asp	Tyr	Trp	Trp	Ala	Glu	His	Gln	Lys	Thr	Cys	Gly	Gly	Thr
			165						170					175	
Tyr	Ile	Lys	Ile	Lys	Glu	Pro	Glu	Asn	Tyr	Ser	Lys	Lys	Gly	Lys	Gly
		180						185					190		
Lys	Ala	Lys	Leu	Gly	Lys	Glu	Pro	Val	Leu	Ala	Ala	Glu	Asn	Lys	Asp
	195						200					205			
Lys	Pro	Asn	Arg	Gly	Glu	Ala	Gln	Leu	Val	Ile	Pro	Phe	Ser	Gly	Lys
	210					215					220				
Gly	Tyr	Val	Leu	Gly	Glu	Thr	Ser	Asn	Leu	Pro	Ser	Pro	Gly	Lys	Leu
225				230						235				240	
Ile	Thr	Ser	His	Ala	Ile	Asn	Lys	Thr	Gln	Asp	Leu	Leu	Asn	Gln	Asn
			245						250					255	
His	Ser	Ala	Asn	Ala	Val	Arg	Pro	Asn	Ser	Lys	Ile	Lys	Val	Lys	Phe
		260						265					270		
Glu	Gln	Asn	Gly	Ser	Ser	Lys	Asn	Ser	His	Leu	Val	Ser	Pro	Ala	Val
	275						280					285			
Ser	Asn	Ser	His	Gln	Asn	Val	Leu	Ser	Asn	Tyr	Phe	Pro	Arg	Val	Ser
	290					295					300				
Phe	Ala	Asn	Gln	Lys	Ala	Phe	Arg	Gly	Val	Asn	Gly	Ser	Pro	Arg	Ile
305				310						315				320	
Ser	Val	Thr	Val	Gly	Asn	Ile	Pro	Lys	Asn	Ser	Val	Ser	Ser	Ser	Ser
			325						330					335	
Gln	Arg	Arg	Val	Ser	Ser	Ser	Lys	Ile	Ser	Leu	Arg	Asn	Ser	Ser	Lys

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          340          345          350
Val Thr Glu Ser Ala Ser Val Met Pro Ser Gln Asp Val Ser Gly Ser
          355          360          365
Glu Asp Thr Phe Pro Asn Lys Arg Pro Arg Leu Glu Asp Lys Thr Val
          370          375          380
Phe Asp Asn Phe Phe Ile Lys Lys Glu Gln Ile Lys Ser Ser Gly Asn
385          390          395          400
Asp Pro Lys Tyr Ser Thr Thr Thr Ala Gln Asn Ser Ser Ser Ser Ser
          405          410          415
Ser Gln Ser Lys Met Val Asn Cys Pro Val Cys Gln Asn Glu Val Leu
          420          425          430
Gly Val Ser Asp
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<210> 3609

<211> 1286

<212> DNA

<213> Homo sapiens

<400> 3609

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120
tgcgtcaacc agtgggagca gctgaggggg ccgggtggca acgaggatgg gccacagaag
180
ctggacttgg aagctgatgc tgagcccaa gacctcgaga gtacgaacct cttggagagt
240
gaagctccca gggactatct cctcaagttt gcctatatctg tggatttga cagcgacaca
300
gcagacaagt tcctgcagct gntttggaac caaagggtgc aagagggtgc tgtgtcctat
360
caannctacc ccttgtcgcc caccgccttc acccattgtg agcagggtgct gggcgagggt
420
gccctggacc gaggcaccta ctactgggag gtggagatta tcgagggctg ggtcagcatg
480
ggggtcatgg ccgcagactt ctccccacaa gagccctacg accgcggccg gctgggcccgc
540
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600
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660
gaccgtgcct tggccttcta tgctgtacgg gacggcaaga tgagcctcct gcggaggctg
720
aaggcctccc ggccccgcgg ggggtggcatc ccggcctccc ccattgaccc cttccagagc
780
cgctgggaca gtcactttgc ggggctcttc acccagagac tcaagcctgc cttcttctg
840
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900
aagaggaggt gatgccgggc acgggcgctc ctgctgccgt ctctgctcca ggaagctgcc
960
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1020

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tctcatttct agaggttcc acctttttat acactcagcc ttccctctcc caggcaggag
 1080
 gacccccaga cctgttccc ctgcagacct cacttctggg agacagagct acagctggga
 1140
 cagctccaag ctaccctaac ccctcctttc ccaggtttct agaatagtgt ctggcatgta
 1200
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 1260
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<210> 3610

<211> 268

<212> PRT

<213> Homo sapiens

<400> 3610

Met	Leu	Ala	Val	Ala	Cys	Val	Asn	Gln	Trp	Glu	Gln	Leu	Arg	Gly	Pro	1	5	10	15
Gly	Gly	Asn	Glu	Asp	Gly	Pro	Gln	Lys	Leu	Asp	Leu	Glu	Ala	Asp	Ala	20	25	30	
Glu	Pro	Gln	Asp	Leu	Glu	Ser	Thr	Asn	Leu	Leu	Glu	Ser	Glu	Ala	Pro	35	40	45	
Arg	Asp	Tyr	Phe	Leu	Lys	Phe	Ala	Tyr	Ile	Val	Asp	Leu	Asp	Ser	Asp	50	55	60	
Thr	Ala	Asp	Lys	Phe	Leu	Gln	Leu	Xaa	Trp	Asn	Gln	Arg	Cys	Gln	Glu	65	70	75	80
Gly	Ala	Val	Ser	Tyr	Gln	Xaa	Tyr	Pro	Leu	Ser	Pro	Thr	Arg	Phe	Thr	85	90	95	
His	Cys	Glu	Gln	Val	Leu	Gly	Glu	Gly	Ala	Leu	Asp	Arg	Gly	Thr	Tyr	100	105	110	
Tyr	Trp	Glu	Val	Glu	Ile	Ile	Glu	Gly	Trp	Val	Ser	Met	Gly	Val	Met	115	120	125	
Ala	Ala	Asp	Phe	Ser	Pro	Gln	Glu	Pro	Tyr	Asp	Arg	Gly	Arg	Leu	Gly	130	135	140	
Arg	Asn	Ala	His	Ser	Cys	Cys	Leu	Gln	Trp	Asn	Gly	Arg	Ser	Phe	Ser	145	150	155	160
Val	Trp	Phe	His	Gly	Leu	Glu	Ala	Pro	Leu	Pro	His	Pro	Phe	Ser	Pro	165	170	175	
Thr	Val	Gly	Val	Cys	Leu	Glu	Tyr	Ala	Asp	Arg	Ala	Leu	Ala	Phe	Tyr	180	185	190	
Ala	Val	Arg	Asp	Gly	Lys	Met	Ser	Leu	Leu	Arg	Arg	Leu	Lys	Ala	Ser	195	200	205	
Arg	Pro	Arg	Arg	Gly	Gly	Ile	Pro	Ala	Ser	Pro	Ile	Asp	Pro	Phe	Gln	210	215	220	
Ser	Arg	Leu	Asp	Ser	His	Phe	Ala	Gly	Leu	Phe	Thr	His	Arg	Leu	Lys	225	230	235	240
Pro	Ala	Phe	Phe	Leu	Glu	Ser	Val	Asp	Ala	His	Leu	Gln	Ile	Gly	Pro	245	250	255	
Leu	Lys	Lys	Ser	Cys	Ile	Ser	Val	Leu	Lys	Arg	Arg					260	265		

<210> 3611

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3611

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 120
 caatggagac agttggaaaa cctgtacttc agagaaaaga agttttccgt ggaagttcat
 180
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 240
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 300
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 420
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 480
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 540
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 600
 gaagctgagc tcacgggcaa gctgccagta gaatatcccc tggatccagg ggaggaacca
 660
 ccattgttc ggagaagaat aggaacagcc ttcaaactgg atgaacagaa aatcctgccc
 720
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 780
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 816

<210> 3612

<211> 272

<212> PRT

<213> Homo sapiens

<400> 3612

Tyr Gly Val His Tyr Tyr Ala Val Lys Asp Lys Gln Gly Ile Pro Trp
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 Trp Leu Gly Leu Ser Tyr Lys Gly Ile Phe Gln Tyr Asp Tyr His Asp
 20 25 30
 Lys Val Lys Pro Arg Lys Ile Phe Gln Trp Arg Gln Leu Glu Asn Leu
 35 40 45
 Tyr Phe Arg Glu Lys Lys Phe Ser Val Glu Val His Asp Pro Arg Arg
 50 55 60
 Ala Ser Val Thr Arg Arg Thr Phe Gly His Ser Gly Ile Ala Val His
 65 70 75 80
 Thr Trp Tyr Ala Cys Pro Ala Leu Ile Lys Ser Ile Trp Ala Met Ala
 85 90 95
 Ile Ser Gln His Gln Phe Tyr Leu Asp Arg Lys Gln Ser Lys Ser Lys
 100 105 110
 Ile His Ala Ala Arg Ser Leu Ser Glu Ile Ala Ile Asp Leu Thr Glu

115					120					125					
Thr	Gly	Thr	Leu	Lys	Thr	Ser	Lys	Leu	Ala	Asn	Met	Gly	Ser	Lys	Gly
130					135					140					
Lys	Ile	Ile	Ser	Gly	Ser	Ser	Gly	Ser	Leu	Leu	Ser	Ser	Gly	Ser	Gln
145					150					155					
Glu	Ser	Asp	Ser	Ser	Gln	Ser	Ala	Lys	Lys	Asp	Met	Leu	Ala	Ala	Leu
165					170					175					
Lys	Ser	Arg	Gln	Glu	Ala	Leu	Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu
180					185					190					
Glu	Leu	Lys	Lys	Leu	Cys	Leu	Arg	Glu	Ala	Glu	Leu	Thr	Gly	Lys	Leu
195					200					205					
Pro	Val	Glu	Tyr	Pro	Leu	Asp	Pro	Gly	Glu	Glu	Pro	Pro	Ile	Val	Arg
210					215					220					
Arg	Arg	Ile	Gly	Thr	Ala	Phe	Lys	Leu	Asp	Glu	Gln	Lys	Ile	Leu	Pro
225					230					235					
Lys	Gly	Glu	Glu	Ala	Glu	Leu	Glu	Arg	Leu	Glu	Arg	Glu	Phe	Ala	Ile
245					250					255					
Gln	Ser	Gln	Ile	Thr	Glu	Ala	Ala	Arg	Arg	Leu	Ala	Ser	Asp	Pro	Asn
260					265					270					

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<210> 3613
<211> 659
<212> DNA
<213> Homo sapiens
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120
cacctggatc cctgcagccc agcctggaat gcgtctggat taggggaaag acgagaaacg
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240
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360
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420
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480
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540
tacagtctt tcgaccattg ccctggagca cccgcacacg cgcacgcac tcgcggccgcg
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<210> 3614
<211> 123
<212> PRT
<213> Homo sapiens
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<400> 3614

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His Ser Ile Ile Val Pro Arg Lys Leu Leu Gln Phe Ile Lys Ser Ser
      20           25           30
Gly Leu Gly Ile Ser Leu Asn Ser Lys Arg Arg Lys Glu Glu Thr Phe
      35           40           45
Pro Thr Arg Cys Gly Cys Asp Ala Ser Gln Gly Pro Gln Gly His Cys
      50           55           60
Pro Arg Ala His Arg Pro Pro Leu Thr Ala Thr Gly Ala Trp Ile Arg
      65           70           75           80
Ser Tyr Ile Val Gln Ser Phe Arg Pro Leu Pro Trp Ser Thr Arg Thr
      85           90           95
Arg Ala Arg Ile Ser Gly Arg Ala His Thr His Ser Tyr Thr Arg Thr
      100          105          110
Gln Thr Arg Ser Glu Lys Ser Pro Pro Pro Pro
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<210> 3615

<211> 1388

<212> DNA

<213> Homo sapiens

<400> 3615

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120
cagtccccgc gagtccagat gcctgtccag cctccaagca aagacacaga agagatggaa
180
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240
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300
cgacgccgca gcgagtgtgt cagtgagatg ctggacctag agaagcagtt ctcgagagcta
360
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720
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780
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900

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 1388

<210> 3616

<211> 290

<212> PRT

<213> Homo sapiens

<400> 3616

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Gly	Asp	Ser	Ala	Ala	Glu	Met	Asn	Gly	Glu	Glu	Glu	Glu	Ser	Glu	Glu
			20				25						30		
Glu	Arg	Ser	Gly	Ser	Gln	Thr	Glu	Ser	Glu	Glu	Glu	Ser	Ser	Glu	Met
			35				40					45			
Asp	Asp	Glu	Asp	Tyr	Glu	Arg	Arg	Arg	Ser	Glu	Cys	Val	Ser	Glu	Met
			50				55				60				
Leu	Asp	Leu	Glu	Lys	Gln	Phe	Ser	Glu	Leu	Lys	Glu	Lys	Leu	Phe	Arg
65					70				75					80	
Glu	Arg	Leu	Ser	Gln	Leu	Arg	Leu	Arg	Leu	Glu	Glu	Val	Gly	Ala	Glu
			85						90					95	
Arg	Ala	Pro	Glu	Tyr	Thr	Glu	Pro	Leu	Gly	Gly	Leu	Gln	Arg	Ser	Leu
			100						105					110	
Lys	Ile	Arg	Ile	Gln	Val	Ala	Gly	Ile	Tyr	Lys	Gly	Phe	Cys	Leu	Asp
			115				120					125			
Val	Ile	Arg	Asn	Lys	Tyr	Glu	Cys	Glu	Leu	Gln	Gly	Ala	Lys	Gln	His
			130				135					140			
Leu	Glu	Ser	Glu	Lys	Leu	Leu	Leu	Tyr	Asp	Thr	Leu	Gln	Gly	Glu	Leu
145					150				155					160	
Gln	Glu	Arg	Ile	Gln	Arg	Leu	Glu	Glu	Asp	Arg	Gln	Ser	Leu	Asp	Leu
			165						170					175	
Ser	Ser	Glu	Trp	Trp	Asp	Asp	Lys	Leu	His	Ala	Arg	Gly	Ser	Ser	Arg
			180					185					190		
Ser	Trp	Asp	Ser	Leu	Pro	Pro	Ser	Lys	Arg	Lys	Lys	Ala	Pro	Leu	Val
			195				200					205			
Ser	Gly	Pro	Tyr	Ile	Val	Tyr	Met	Leu	Gln	Glu	Ile	Gly	Ile	Leu	Glu
			210				215				220				
Asp	Trp	Thr	Ala	Ile	Lys	Lys	Ala	Arg	Ala	Ala	Val	Ser	Pro	Gln	Lys

225	230								235					240			
Arg	Lys	Ser	Asp	Asp	Arg	Arg	Thr	His	Arg	Pro	Leu	Arg	Val	Cys	Pro		
				245					250					255			
Ala	Arg	Leu	Leu	Trp	Cys	Cys	Trp	Ala	Leu	Pro	Leu	His	Leu	Ala	Leu		
				260					265					270			
Ala	Trp	Thr	Pro	Pro	Leu	Pro	Ser	Ser	Arg	Pro	Ala	Gln	Leu	Trp	Pro		
				275					280					285			
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290																	

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<210> 3617
<211> 804
<212> DNA
<213> Homo sapiens
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120
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360
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420
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<210> 3618
<211> 148
<212> PRT
<213> Homo sapiens
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<400> 3618
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20 25 30
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 35 40 45
 Ser Tyr Cys Pro Asp Cys Ala Leu Leu Val Ser Ala Asn Thr Gly
 50 55 60
 Ile Ala Gly Thr Thr Arg Glu His Leu Gly Leu Ala Leu Ala Leu Lys
 65 70 75 80
 Val Pro Phe Phe Ile Val Val Ser Lys Ile Asp Leu Cys Ala Lys Thr
 85 90 95
 Thr Val Glu Arg Thr Val Arg Gln Leu Glu Arg Val Leu Lys Gln Pro
 100 105 110
 Gly Cys His Lys Val Pro Met Leu Val Thr Ser Glu Asp Asp Ala Val
 115 120 125
 Thr Ala Ala Gln Gln Phe Ala Gln Ser Pro Asn Val Thr Pro Ile Phe
 130 135 140
 Thr Leu Ser Ser
 145

<210> 3619

<211> 948

<212> DNA

<213> Homo sapiens

<400> 3619

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 240
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 300
 tcctggtgtc ggtgctggca gcggtectgt ggaagcatgt gcggtgcgt gagcatgcag
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 420
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948

<210> 3620
<211> 159
<212> PRT
<213> Homo sapiens

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Ser Ser Ser Ser Met Ala Thr Pro Leu Ser Cys Cys Pro Thr Trp Ala
35 40 45
Pro Gly Ala Ser Ser Gln Pro Cys Ser Thr Tyr Pro Pro Trp Arg Thr
50 55 60
Thr Thr Leu Ser Thr Ser Thr Ser Trp Ser Cys Leu Leu Leu Pro Cys
65 70 75 80
Ala Ser Cys Pro Ser Arg Cys Ser Cys Gln Thr Trp Pro Ser Ser Pro
85 90 95
Thr Ala Ser Thr Pro Thr Thr Ser Cys Thr Ser Phe Met Thr Thr Cys
100 105 110
Cys His Ser Ser Thr Pro Cys Gly Ser Phe Pro Ala Trp Pro Thr Arg
115 120 125
His Gly Ser Ser Ser Trp Arg Ala Gly Ala Arg Val His Thr Ser Thr
130 135 140
Ser Thr Ser Cys Ser Ala Pro Ser Ser Leu Ser Cys Gly His Ser
145 150 155

<210> 3621
<211> 2934
<212> DNA
<213> Homo sapiens

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180
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240
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300
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360
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420
tccatccacc acatcagaac aatgtcgtat gtttttgtaa atgattcttc tcagactaac
480
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540

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900
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1020
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1260
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1380
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2160

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 2220
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<210> 3622

<211> 228

<212> PRT

<213> Homo sapiens

<400> 3622

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			20					25					30		
Glu	Ser	Gly	Phe	Asp	Pro	Asn	Ile	Arg	Asp	Ser	Arg	Gly	Arg	Thr	Gly
		35				40						45			
Leu	His	Leu	Ala	Ala	Ala	Arg	Gly	Asn	Val	Asp	Ile	Cys	Gln	Leu	Leu
	50					55					60				
His	Lys	Phe	Gly	Ala	Asp	Leu	Leu	Ala	Thr	Asp	Tyr	Gln	Gly	Asn	Thr
65					70					75				80	
Ala	Leu	His	Leu	Cys	Gly	His	Val	Asp	Thr	Ile	Gln	Phe	Leu	Val	Ser
			85					90						95	
Asn	Gly	Leu	Lys	Ile	Asp	Ile	Cys	Asn	His	Gln	Gly	Ala	Thr	Pro	Leu
		100						105					110		
Val	Leu	Ala	Lys	Arg	Arg	Gly	Val	Asn	Lys	Asp	Val	Ile	Arg	Leu	Leu
		115				120						125			
Glu	Ser	Leu	Glu	Glu	Gln	Glu	Val	Lys	Gly	Phe	Asn	Arg	Gly	Thr	His
	130					135					140				
Ser	Lys	Leu	Glu	Thr	Met	Gln	Thr	Ala	Glu	Ser	Glu	Ser	Ala	Met	Glu
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[illegible]

<210> 3623

<211> 586

<212> DNA

<213> Homo sapiens

<400> 3623

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<210> 3624

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3624

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Ala	Thr	Ala	Ala	Gln	Gln	Val	Leu	Ser	Asp	Ser	Leu	His	Pro	Lys	Cys
			20					25					30		
Arg	Asp	Ile	Thr	Lys	Glu	Glu	Ile	Ser	Lys	Phe	Ser	Lys	Ala	Glu	Trp
		35					40					45			
Glu	Lys	Lys	Arg	Met	Asp	Lys	Ala	Ile	Gly	Tyr	Ser	Phe	Ala	Ile	Val
	50					55					60				
Gly	Ile	Asn	Ile	Thr	Asp	Leu	Ala	Tyr	Asn	Leu	Leu	Val	Ser	Gly	Ala
65					70					75				80	
Leu	Lys	Thr	His	Phe	Tyr	Asn	Ile	Ala	Pro	Glu	Ala	Pro	Thr	Leu	Ser

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<210> 3625
<211> 4799
<212> DNA
<213> Homo sapiens
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2780

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<210> 3626

<211> 551

<212> PRT

<213> Homo sapiens

<400> 3626

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			20					25					30		
Trp	Gly	Pro	Ser	Ser	Ser	Leu	Met	Ser	Glu	Ile	Ala	Asp	Leu	Thr	Tyr
		35					40					45			
Asn	Val	Val	Ala	Phe	Ser	Glu	Ile	Met	Ser	Met	Ile	Trp	Lys	Arg	Leu
	50					55					60				
Asn	Asp	His	Gly	Lys	Asn	Trp	Arg	His	Val	Tyr	Lys	Ala	Met	Thr	Leu
65					70					75					80
Met	Glu	Tyr	Leu	Ile	Lys	Thr	Gly	Ser	Glu	Arg	Val	Ser	Gln	Gln	Cys
			85					90					95		
Lys	Glu	Asn	Met	Tyr	Ala	Val	Gln	Thr	Leu	Lys	Asp	Phe	Gln	Tyr	Val
		100					105						110		
Asp	Arg	Asp	Gly	Lys	Asp	Gln	Gly	Val	Asn	Val	Arg	Glu	Lys	Ala	Lys
		115				120						125			
Gln	Leu	Val	Ala	Leu	Leu	Arg	Asp	Glu	Asp	Arg	Leu	Arg	Glu	Glu	Arg
	130					135					140				
Ala	His	Ala	Leu	Lys	Thr	Lys	Glu	Lys	Leu	Ala	Gln	Thr	Ala	Thr	Ala
145					150					155					160
Ser	Ser	Ala	Ala	Val	Gly	Ser	Gly	Pro	Pro	Pro	Glu	Ala	Glu	Gln	Ala
			165					170					175		
Trp	Pro	Gln	Ser	Ser	Gly	Glu	Glu	Glu	Leu	Gln	Leu	Gln	Leu	Ala	Leu
		180					185						190		
Ala	Met	Ser	Lys	Glu	Glu	Ala	Asp	Gln	Glu	Glu	Arg	Ile	Arg	Arg	Gly
	195					200					205				
Asp	Asp	Leu	Arg	Leu	Gln	Met	Ala	Ile	Glu	Glu	Ser	Lys	Arg	Glu	Thr
	210				215						220				
Gly	Gly	Lys	Glu	Glu	Ser	Ser	Leu	Met	Asp	Leu	Ala	Asp	Val	Phe	Thr
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Ala	Pro	Ala	Pro	Ala	Pro	Thr	Thr	Asp	Pro	Trp	Gly	Gly	Pro	Ala	Pro
			245					250					255		
Met	Ala	Ala	Ala	Val	Pro	Thr	Ala	Ala	Pro	Thr	Ser	Asp	Pro	Trp	Gly

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 Gly Pro Pro Val Pro Pro Ala Ala Asp Pro Trp Gly Gly Pro Ala Pro
 275 280 285
 Thr Pro Ala Ser Gly Asp Pro Trp Arg Pro Ala Ala Pro Ala Gly Pro
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 Ser Val Asp Pro Trp Gly Gly Thr Pro Ala Pro Ala Ala Gly Glu Gly
 305 310 315 320
 Pro Thr Pro Asp Pro Trp Gly Ser Ser Asp Gly Gly Val Pro Val Ser
 325 330 335
 Gly Pro Ser Ala Ser Asp Pro Trp Thr Pro Ala Pro Ala Phe Ser Asp
 340 345 350
 Pro Trp Gly Gly Ser Pro Ala Lys Pro Ser Thr Asn Gly Thr Thr Thr
 355 360 365
 Ala Gly Gly Phe Asp Thr Glu Pro Asp Glu Phe Ser Asp Phe Asp Arg
 370 375 380
 Leu Arg Thr Ala Leu Pro Thr Ser Gly Ser Ser Ala Gly Glu Leu Glu
 385 390 395 400
 Leu Leu Ala Gly Glu Val Pro Ala Arg Ser Pro Gly Ala Phe Asp Met
 405 410 415
 Ser Gly Val Arg Gly Ser Leu Ala Glu Ala Val Gly Ser Pro Pro Pro
 420 425 430
 Ala Ala Thr Pro Thr Pro Thr Pro Thr Arg Lys Thr Pro Glu Ser
 435 440 445
 Phe Leu Gly Pro Asn Ala Ala Leu Val Asp Leu Asp Ser Leu Val Ser
 450 455 460
 Arg Pro Gly Pro Thr Pro Pro Gly Ala Lys Ala Ser Asn Pro Phe Leu
 465 470 475 480
 Pro Gly Gly Gly Pro Ala Thr Gly Pro Ser Val Thr Asn Pro Phe Gln
 485 490 495
 Pro Ala Pro Pro Ala Thr Leu Thr Leu Asn Gln Leu Arg Leu Ser Pro
 500 505 510
 Val Pro Pro Val Pro Gly Ala Pro Pro Thr Tyr Ile Ser Pro Leu Gly
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<210> 3627

<211> 1760

<212> DNA

<213> Homo sapiens

<400> 3627

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<210> 3628

<211> 440

<212> PRT

<213> Homo sapiens

<400> 3628

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 Asp Gln Asp Ser Lys Glu Ala Lys Lys Pro Asn Ile Ile Asn Phe Asp
 35 40 45
 Thr Ser Leu Pro Thr Ser His Thr Tyr Leu Gly Ala Asp Met Glu Glu
 50 55 60
 Phe His Gly Arg Thr Leu His Asp Asp Asp Ser Cys Gln Val Ile Pro
 65 70 75 80
 Val Leu Pro Gln Val Met Met Ile Leu Ile Pro Gly Gln Thr Leu Pro
 85 90 95
 Leu Gln Leu Phe His Pro Gln Glu Val Ser Met Val Arg Asn Leu Ile
 100 105 110
 Gln Lys Asp Arg Thr Phe Ala Val Leu Ala Tyr Ser Asn Val Gln Glu
 115 120 125
 Arg Glu Ala Gln Phe Gly Thr Thr Ala Glu Ile Tyr Ala Tyr Arg Glu
 130 135 140
 Glu Gln Asp Phe Gly Ile Glu Ile Val Lys Val Lys Ala Ile Gly Arg
 145 150 155 160
 Gln Arg Phe Lys Val Leu Glu Leu Arg Thr Gln Ser Asp Gly Ile Gln
 165 170 175
 Gln Ala Lys Val Gln Ile Leu Pro Glu Cys Val Leu Pro Ser Thr Met
 180 185 190
 Ser Ala Val Gln Leu Glu Ser Leu Asn Lys Cys Gln Ile Phe Pro Ser
 195 200 205
 Lys Pro Val Ser Arg Glu Asp Gln Cys Ser Tyr Lys Trp Trp Gln Lys
 210 215 220
 Tyr Gln Lys Arg Lys Phe His Cys Ala Asn Leu Thr Ser Trp Pro Arg
 225 230 235 240
 Trp Leu Tyr Ser Leu Tyr Asp Ala Glu Thr Leu Met Asp Arg Ile Lys
 245 250 255
 Lys Gln Leu Arg Glu Trp Asp Glu Asn Leu Lys Asp Asp Ser Leu Pro
 260 265 270
 Ser Asn Pro Ile Asp Phe Ser Tyr Arg Val Ala Ala Cys Leu Pro Ile
 275 280 285
 Asp Asp Val Leu Arg Ile Gln Leu Leu Lys Ile Gly Ser Ala Ile Gln
 290 295 300
 Arg Leu Arg Cys Glu Leu Asp Ile Met Asn Lys Cys Thr Ser Leu Cys
 305 310 315 320
 Cys Lys Gln Cys Gln Glu Thr Glu Ile Thr Thr Lys Asn Glu Ile Phe
 325 330 335
 Ser Leu Ser Leu Cys Gly Pro Met Ala Ala Tyr Val Asn Pro His Gly
 340 345 350
 Tyr Val His Glu Thr Leu Thr Val Tyr Lys Ala Cys Asn Leu Asn Leu
 355 360 365
 Ile Gly Arg Pro Ser Thr Glu His Ser Trp Phe Pro Gly Tyr Ala Trp
 370 375 380
 Thr Val Ala Gln Cys Lys Ile Cys Ala Ser His Ile Gly Trp Lys Phe
 385 390 395 400
 Thr Ala Thr Lys Lys Asp Met Ser Pro Gln Lys Phe Trp Gly Leu Thr

405 410 415
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 Pro Asp Lys Val Ile Leu Cys Leu
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<210> 3629
 <211> 695
 <212> DNA
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 420
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<210> 3630
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 3630
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 His Ala Phe Leu Phe Thr Gly Gly Val Val Ser Ala Trp Asp Gln Val
 20 25 30
 Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu
 35 40 45
 Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His
 50 55 60
 Leu Leu Val Leu Gly Leu Tyr Leu Gly Pro Gln Pro Asp Ser Arg Pro
 65 70 75 80
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<212> DNA
<213> Homo sapiens
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<210> 3632
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<212> PRT
<213> Homo sapiens
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<400> 3632
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      1           5           10           15
Pro Leu Asp Gly Ser Val Asp Val Asp Glu His Arg Arg Pro Glu Ala

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 Ile Thr Thr Glu Gly Lys Tyr Trp Lys Ser Arg Ile Glu Ile Val Ile
 35 40 45
 Arg Glu Tyr His Lys Trp Arg Thr Tyr Phe Lys Lys Arg Leu Gln Gln
 50 55 60
 His Lys Asp Glu Asp Leu Ser Ser Leu Val Gln Asp Asp Asp Met Leu
 65 70 75 80
 Tyr Trp His Lys His Gly Asp Gly Trp Lys Thr Pro Val Pro Met Glu
 85 90 95
 Glu Asp Pro Leu Leu Asp Thr Asp Met Leu Met Ser Glu Phe Ser Asp
 100 105 110
 Thr Leu Phe Ser Thr Leu Ser Ser His Gln Pro Val Ala Trp Pro Asn
 115 120 125
 Pro Arg Glu Ile Ala His Leu Gly Asn Ala Asp Met Ile Gln Pro Gly
 130 135 140
 Leu Ile Pro Leu Gln Pro Asn Leu Asp Phe Met Asp Thr Phe Glu Pro
 145 150 155 160
 Phe Gln Asp Leu Phe Ser Ser Ser Arg Ser Ile Phe Gly Ser Met Leu
 165 170 175
 Pro Ala Ser Ala Ser Ala Pro Val Pro Asp Pro Asn Asn Pro Pro Ala
 180 185 190
 Gln Glu Ser Ile Leu Pro Thr Thr Ala Leu Pro Thr Val Ser Leu Pro
 195 200 205
 Asp Ser Leu Ile Ala Pro Pro Thr Ala Pro Ser Leu Ala Arg
 210 215 220

<210> 3633

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 3633

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 300
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<210> 3634

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3634

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Glu	Ile	Val	Tyr	Ser	Gly	Gly	Asp	Asp	Gly	Leu	Leu	Arg	Gly	Trp	Asp
	35					40						45			
Thr	Arg	Val	Pro	Gly	Lys	Phe	Leu	Phe	Thr	Ser	Xaa	Lys	Thr	His	His
	50				55				60						
Xaa	Gly	Val	Cys	Ser	Ile	Gln	Ser	Ser	Pro	His	Arg	Glu	His	Ile	Leu
65					70				75					80	
Ala	Thr	Gly	Ser	Tyr	Asp	Glu	His	Ile	Leu	Leu	Trp	Asp	Thr	Arg	Asn
		85						90					95		
Met	Lys	Gln	Pro	Leu	Ala	Asp	Thr	Pro	Val	Gln	Gly	Gly	Val	Trp	Arg
		100						105					110		
Ile	Lys	Trp	His	Pro	Phe	His	His	His	Leu	Leu	Leu	Ala	Ala	Cys	Met

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<210> 3636
<211> 278
<212> PRT
<213> Homo sapiens

<400> 3636
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Ala Arg Leu Gln Gln Val Asp Pro Val Leu Leu Lys Asp Glu Pro Gln
35 40 45
Gln Thr Ala Ala Gln Met Gly Cys Ala Pro Ile Gln Pro Leu Ala Met
50 55 60
Pro Gln Ala Leu Pro Leu Ala Ala Gly Pro Leu Pro Pro Gly Ser Ile
65 70 75 80
Ala Asn Leu Thr Glu Leu Gln Gly Val Ile Val Gly Gln Pro Val Leu
85 90 95
Gly Gln Ala Gln Leu Ala Gly Leu Gly Gln Gly Ile Leu Thr Glu Thr
100 105 110
Gln Gln Gly Leu Met Val Ala Ser Pro Ala Gln Thr Leu Asn Asp Thr
115 120 125
Leu Asp Asp Ile Met Ala Ala Val Ser Gly Arg Ala Ser Ala Met Ser
130 135 140
Asn Thr Pro Thr His Ser Ile Ala Ala Ser Ile Ser Gln Pro Gln Thr
145 150 155 160
Pro Thr Pro Ser Pro Ile Ile Ser Pro Ser Ala Met Leu Pro Ile Tyr
165 170 175
Pro Ala Ile Asp Ile Asp Ala Gln Thr Glu Ser Asn His Asp Thr Ala
180 185 190
Leu Thr Leu Ala Cys Ala Gly Gly His Glu Glu Leu Val Gln Thr Leu
195 200 205
Leu Glu Arg Gly Ala Ser Ile Glu His Arg Asp Lys Lys Gly Phe Thr
210 215 220
Pro Leu Ile Leu Ala Ala Thr Ala Gly His Val Gly Val Val Glu Ile
225 230 235 240
Leu Leu Asp Asn Gly Ala Asp Ile Glu Ala Gln Ser Glu Arg Thr Lys
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<210> 3637
<211> 2128
<212> DNA
<213> Homo sapiens

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1680

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<210> 3638

<211> 200

<212> PRT

<213> Homo sapiens

<400> 3638

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			20					25					30		
Leu	Trp	Gly	Ser	Gln	Leu	Gly	Lys	Pro	Val	Ser	Phe	Gly	Thr	Phe	Arg
		35					40					45			
Arg	Cys	Ser	Tyr	Pro	Val	His	Asp	Glu	Ser	Arg	Gln	Met	Met	Val	Met
	50					55					60				
Val	Glu	Glu	Cys	Gly	Arg	Tyr	Ala	Ser	Phe	Gln	Gly	Ile	Pro	Ser	Ala
65					70					75				80	
Glu	Trp	Arg	Ile	Cys	Thr	Ile	Val	Thr	Gly	Leu	Gly	Cys	Gly	Leu	Leu
			85						90					95	
Leu	Leu	Val	Ala	Leu	Thr	Ala	Leu	Met	Gly	Cys	Cys	Val	Ser	Asp	Leu
			100					105					110		
Ile	Ser	Arg	Thr	Val	Gly	Arg	Val	Ala	Gly	Gly	Ile	Gln	Phe	Leu	Gly
		115					120					125			
Gly	Leu	Leu	Ile	Gly	Ala	Gly	Cys	Ala	Leu	Tyr	Pro	Leu	Gly	Trp	Asp
	130					135					140				
Ser	Glu	Glu	Val	Arg	Gln	Thr	Cys	Gly	Tyr	Thr	Ser	Gly	Gln	Phe	Asp
145					150					155				160	
Leu	Gly	Lys	Cys	Glu	Ile	Gly	Trp	Ala	Tyr	Tyr	Cys	Thr	Gly	Ala	Gly
			165						170					175	
Ala	Thr	Ala	Ala	Met	Leu	Leu	Cys	Thr	Trp	Leu	Ala	Cys	Phe	Ser	Gly
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Lys	Lys	Gln	Lys	His	Tyr	Pro	Tyr								
		195					200								

<210> 3639

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3639

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 240
 aagcacatta atgtaggcag attatcaatg ttatgcattt cactgattgc atatctcttt
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<210> 3640

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3640

Met	Leu	His	Ala	Ala	Arg	Lys	Arg	Asp	His	Val	Pro	Phe	Arg	Lys	Met
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Ser	Leu	Ile	Met	Lys	Glu	Met	Pro	Trp	Arg	Thr	Gln	His	Pro	Asn	Phe
			20					25					30		
Ser	Leu	Leu	Asn	Pro	Leu	Lys	Gly	Glu	Ile	Phe	Leu	Leu	Pro	Ala	Arg
		35					40					45			
Val	Tyr	Gly	Asp	Asp	Thr	Leu	Arg	Pro	Cys	Trp	Cys	Trp	Lys	Asn	His
	50					55					60				
Leu	Trp	Gln	Cys	His	Phe	Leu	Arg	Lys	Thr	Tyr	Gln	Ser	Phe	Ala	Met
65					70				75					80	
Phe	Thr	Ile	Asp	Lys	Lys	Arg	Asp	Met	Gln	Ser	Val	Lys	Cys	Ile	Thr
			85					90						95	
Leu	Ile	Ile	Cys	Leu	His										
			100												

<210> 3641

<211> 455

<212> DNA

<213> Homo sapiens

<400> 3641
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 120
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 180
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 240
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 300
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 455

<210> 3642
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 3642
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 20 25 30
 Gln Ser Pro Glu Glu Ser Arg Ser Ser His Ala Ser Arg Asp Leu Ala
 35 40 45
 Pro Leu Glu Arg Arg Ser Gly Arg Gly Ala Arg Asp Ala Arg Ala Leu
 50 55 60
 Thr Ser Trp Ala Pro Val Arg Gly Glu Val Arg Lys Lys Thr Pro Ser
 65 70 75 80
 Glu Val Thr Val Pro Thr Arg Val Asp Ser Pro Arg Pro Asp His Ala
 85 90 95
 Arg Arg Trp Pro Lys Gly Arg Gly Trp Gly Arg Gly Cys Ser Ala Pro
 100 105 110
 Ser Ser Arg Ala Ala Ser Leu Gln Val Phe Ala Leu Ala Arg Arg Ser
 115 120 125
 Pro Arg Glu Gln Phe Gly Thr Val Arg Ile Gly Phe Arg Glu Pro Ala
 130 135 140
 Phe Lys Thr Arg
 145

<210> 3643
 <211> 2243
 <212> DNA
 <213> Homo sapiens

<400> 3643
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120
ctttgcaagc aggtggccag taaagctgag gagaatctgc tcatggtgct ggggacagac
180
atgagtgatc ggagagctgc agtcatcttt gcagatacac ttactcttct gtttgaaggg
240
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300
ctctataccc tgatcaaata tctgcagggtg gaatgtgaca gacagggtgga gaagggtgga
360
gacaagttca tcaagcaaag ggactaccac cagcagttcc ggcatgttca gaacaacctg
420
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480
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780
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 1920
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 1980
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 2040
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 2100
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 2160
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 2220
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 2243

<210> 3644
 <211> 560
 <212> PRT
 <213> Homo sapiens

<400> 3644
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 20 25 30
 Asp Met Ser Asp Arg Arg Ala Ala Val Ile Phe Ala Asp Thr Leu Thr
 35 40 45
 Leu Leu Phe Glu Gly Ile Ala Arg Ile Val Glu Thr His Gln Pro Ile
 50 55 60
 Val Glu Thr Tyr Tyr Gly Pro Gly Arg Leu Tyr Thr Leu Ile Lys Tyr
 65 70 75 80
 Leu Gln Val Glu Cys Asp Arg Gln Val Glu Lys Val Val Asp Lys Phe
 85 90 95
 Ile Lys Gln Arg Asp Tyr His Gln Gln Phe Arg His Val Gln Asn Asn
 100 105 110
 Leu Met Arg Asn Ser Thr Thr Glu Lys Ile Glu Pro Arg Glu Leu Asp
 115 120 125
 Pro Ile Leu Thr Glu Val Thr Leu Met Asn Ala Arg Ser Glu Leu Tyr
 130 135 140
 Leu Arg Phe Leu Lys Lys Arg Ile Ser Ser Asp Phe Glu Val Gly Asp
 145 150 155 160
 Ser Met Ala Ser Glu Glu Val Lys Gln Glu His Gln Lys Cys Leu Asp
 165 170 175
 Lys Leu Leu Asn Asn Cys Leu Leu Ser Cys Thr Met Gln Glu Leu Ile
 180 185 190
 Gly Leu Tyr Val Thr Met Glu Glu Tyr Phe Met Arg Glu Thr Val Asn
 195 200 205
 Lys Ala Val Ala Leu Asp Thr Tyr Glu Lys Gly Gln Leu Thr Ser Ser

210	215	220
Met Val Asp Asp Val Phe Tyr Ile Val Lys Lys Cys Ile Gly Arg Ala		
225	230	235
Leu Ser Ser Ser Ser Ile Asp Cys Leu Cys Ala Met Ile Asn Leu Ala		240
	245	250
Thr Thr Glu Leu Glu Ser Asp Phe Arg Asp Val Leu Cys Asn Lys Leu		255
	260	265
Arg Met Gly Phe Pro Ala Thr Thr Phe Gln Asp Ile Gln Arg Gly Val		270
	275	280
Thr Ser Ala Val Asn Ile Met His Ser Ser Leu Gln Gln Gly Lys Phe		285
	290	295
Asp Thr Lys Gly Ile Glu Ser Thr Asp Glu Ala Lys Met Ser Phe Leu		300
305	310	315
Val Thr Leu Asn Asn Val Glu Val Cys Ser Glu Asn Ile Ser Thr Leu		320
	325	330
Lys Lys Thr Leu Glu Ser Asp Cys Thr Lys Leu Phe Ser Gln Gly Ile		335
	340	345
Gly Gly Glu Gln Ala Gln Ala Lys Phe Asp Ser Cys Leu Ser Asp Leu		350
	355	360
Ala Ala Val Ser Asn Lys Phe Arg Asp Leu Leu Gln Glu Gly Leu Thr		365
	370	375
Glu Leu Asn Ser Thr Ala Ile Lys Pro Gln Val Gln Pro Trp Ile Asn		380
385	390	395
Ser Phe Phe Ser Val Ser His Asn Ile Glu Glu Glu Glu Phe Asn Asp		400
	405	410
Tyr Glu Ala Asn Asp Pro Trp Val Gln Gln Phe Ile Leu Asn Leu Glu		415
	420	425
Gln Gln Met Ala Glu Phe Lys Ala Ser Leu Ser Pro Val Ile Tyr Asp		430
	435	440
Ser Leu Thr Gly Leu Met Thr Ser Leu Val Ala Val Glu Leu Glu Lys		445
	450	455
Val Val Leu Lys Ser Thr Phe Asn Arg Leu Gly Gly Leu Gln Phe Asp		460
465	470	475
Lys Glu Leu Arg Ser Leu Ile Ala Tyr Leu Thr Thr Val Thr Thr Trp		480
	485	490
Thr Ile Arg Asp Lys Phe Ala Arg Leu Ser Gln Met Ala Thr Ile Leu		495
	500	505
Asn Leu Glu Arg Val Thr Glu Ile Leu Asp Tyr Trp Gly Pro Asn Ser		510
	515	520
Gly Pro Leu Thr Trp Arg Leu Thr Pro Ala Glu Val Arg Gln Val Leu		525
	530	535
Ala Leu Arg Ile Asp Phe Arg Ser Glu Asp Ile Lys Arg Leu Arg Leu		540
545	550	555
		560

<210> 3645

<211> 823

<212> DNA

<213> Homo sapiens

<400> 3645

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120

tcgggttgat ttcctcatct tctatttgat gggctaactg ctctatggaa ggaagatctt
 180
 cctcctcctt ggaggctaag atttggcgta actctttcct gagatcaata aaacgatcgt
 240
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 300
 catcgtaccg agcacacagg ttgttgagga gttgctcgtg ctggccaaac aagcggatgt
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 420
 tgtaatatg aattcggaag taagtcccat ttttcgcact gccggttact agttctaaac
 480
 cataattagg ctgggccatt tgtacctcca agggagttgg aatggcaggc ttggcaatat
 540
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 660
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 720
 gcccatcat ttgagtagta tctattggag aatttggtga gggagccagc agctctgatg
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 823

<210> 3646

<211> 243

<212> PRT

<213> Homo sapiens

<400> 3646

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Leu	Ala	Ala	Ala	Met	Leu	His	Leu	Phe	Asp	Pro	Thr	Leu	Glu	Pro	Val
			20					25					30		
Thr	Glu	Pro	Pro	Ala	Asn	Leu	Asp	Arg	Leu	Ile	Pro	Met	Tyr	Lys	Gly
		35				40					45				
Ala	Lys	Ile	Gln	Gly	Gly	Ile	Leu	Pro	Gly	Ser	Tyr	His	Tyr	Leu	His
	50				55					60					
Ile	Ala	Lys	Pro	Ala	Ile	Pro	Thr	Pro	Leu	Glu	Val	Gln	Met	Ala	Gln
65				70					75					80	
Pro	Asn	Tyr	Gly	Leu	Glu	Leu	Val	Thr	Gly	Ser	Ala	Lys	Asn	Gly	Thr
			85					90					95		
Tyr	Phe	Arg	Ile	His	Ile	Asn	Lys	Tyr	Lys	Met	Val	Glu	Thr	Ile	Thr
			100					105					110		
Cys	Leu	Ser	Arg	Glu	Pro	Phe	Pro	Ala	Ser	Asn	Tyr	Ile	Arg	Leu	Phe
		115					120					125			
Gly	Gln	His	Glu	Gln	Leu	Leu	Asn	Asn	Leu	Cys	Ala	Arg	Tyr	Asp	Glu
	130					135				140					
Asn	Leu	Ile	Thr	Asp	Leu	Tyr	Ser	Tyr	Phe	Thr	Glu	Pro	Trp	Cys	Leu
145					150				155					160	
Ala	Leu	Phe	His	Asp	Arg	Phe	Ile	Asp	Leu	Arg	Lys	Glu	Leu	Arg	Gln
			165					170					175		
Ile	Leu	Ala	Ser	Lys	Glu	Glu	Glu	Asp	Leu	Pro	Ser	Ile	Glu	Gln	Leu

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                180                185                190
Ala His Gln Ile Glu Asp Glu Glu Ile Asn Pro Thr Glu Lys Pro Arg
                195                200                205
Gln Tyr Leu Lys Arg Val Phe Glu Glu Ser Ile Tyr Lys Thr Leu Val
                210                215                220
Glu Arg Ser Thr Leu Asp Tyr Leu His Tyr Asn Arg Tyr His Leu Pro
225                230                235                240
Met Tyr Ala

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<210> 3647

<211> 584

<212> DNA

<213> Homo sapiens

<400> 3647

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acgagggcac ctactcctgc cacctgcacc accattactg tggcctgcac gaacgcgcgcg
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420
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480
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<210> 3648

<211> 63

<212> PRT

<213> Homo sapiens

<400> 3648

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20        25        30
Val Ser Ser Arg Trp Arg Ser Pro Thr Arg Ala Pro Thr Pro Ala Thr
35        40        45
Cys Thr Thr Ile Thr Val Ala Cys Thr Asn Ala Ala Ser Ser Thr
50        55        60

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<210> 3649

<211> 648

<212> DNA

<213> Homo sapiens

<400> 3649

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120
tgctcattgt ttgctgtgct cccctttttt tttcagggtg ctatttctgc agatgtcaaa
180
gaagttctgt taactgatgg gaatgaaaag gccatcagaa atgtgcaaga catcatcaca
240
aggaatcaga aggctggtgt gtttaagacc cagaaaatat caagctgcgt tttacgatgg
300
gataatgaga cagatgtctc tcaactggaa ggacattttg acattgttat gtgtgctgac
360
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420
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480
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540
tcaaacttcc actccaagtt gaaaaaggaa aaccgggaca tatatgaaga aaaccttcat
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<210> 3650

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3650

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His	Ile	Cys	Ser	Leu	Phe	Ala	Val	Leu	Pro	Phe	Phe	Phe	Gln	Val	Ala
			20					25					30		
Ile	Ser	Ala	Asp	Val	Lys	Glu	Val	Leu	Leu	Thr	Asp	Gly	Asn	Glu	Lys
		35				40						45			
Ala	Ile	Arg	Asn	Val	Gln	Asp	Ile	Ile	Thr	Arg	Asn	Gln	Lys	Ala	Gly
	50				55						60				
Val	Phe	Lys	Thr	Gln	Lys	Ile	Ser	Ser	Cys	Val	Leu	Arg	Trp	Asp	Asn
65				70						75				80	
Glu	Thr	Asp	Val	Ser	Gln	Leu	Glu	Gly	His	Phe	Asp	Ile	Val	Met	Cys
			85					90					95		
Ala	Asp	Cys	Leu	Phe	Leu	Asp	Gln	Tyr	Arg	Ala	Ser	Leu	Val	Asp	Ala
		100						105					110		
Ile	Lys	Arg	Leu	Leu	Gln	Pro	Arg	Gly	Lys	Ala	Met	Val	Phe	Ala	Pro
		115				120						125			
Arg	Arg	Gly	Asn	Thr	Leu	Asn	Gln	Phe	Cys	Asn	Leu	Ala	Glu	Lys	Ala
		130				135					140				
Gly	Phe	Cys	Ile	Gln	Arg	His	Glu	Asn	Tyr	Asp	Glu	His	Ile	Ser	Asn
145				150						155				160	
Phe	His	Ser	Lys	Leu	Lys	Lys	Glu	Asn	Pro	Asp	Ile	Tyr	Glu	Glu	Asn

165 170 175
 Leu His Tyr Pro Pro Leu Leu Ile Leu Thr Lys His Gly
 180 185

<210> 3651
 <211> 2469
 <212> DNA
 <213> Homo sapiens

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 420
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 480
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 ccagagatga agcccagagc cgggacagag atccgcttct cagagctgcc cagcagatg
 720
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 780
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 840
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 900
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 960
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 1080
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 1320

cagggcagca atctctccag gtcctgcaaa gatggagcca gaattccctt tttcactgat
 1380
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 1860
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 2220
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<210> 3652

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3652

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Gly	Ile	Asp	Tyr	Asn	Ser	Trp	Glu	Val	Gly	Pro	Lys	Phe	Arg	Gly	Val
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Lys	Met	Ile	Pro	Pro	Gly	Ile	His	Phe	Leu	His	Tyr	Ser	Ser	Val	Asp

	50					55					60					
Lys 65	Ala	Asn	Pro	Lys	Glu 70	Val	Gly	Pro	Arg	Met 75	Gly	Phe	Phe	Leu	Ser 80	
Leu	His	Gln	Arg	Gly 85	Leu	Thr	Val	Leu	Arg 90	Trp	Ser	Thr	Leu	Arg 95	Glu	
Glu	Val	Asp	Leu	Ser 100	Pro	Ala	Pro	Glu 105	Ser	Glu	Val	Glu	Ala	Met 110	Arg	
Ala	Asn	Leu	Gln	Glu 115	Leu	Asp	Gln	Phe 120	Leu	Gly	Pro	Tyr	Pro	Tyr 125	Ala	
Thr	Leu	Lys	Lys	Trp 130	Ile	Ser	Leu	Thr 135	Asn	Phe	Ile	Ser	Glu	Ala 140	Thr	
Val	Glu	Lys	Leu	Gln 145	Pro	Glu	Asn	Arg 150	Gln	Ile	Cys	Ala	Phe	Ser 160	Asp	
Val	Leu	Pro	Val	Leu 165	Ser	Met	Lys	His 170	Thr	Lys	Asp	Arg	Val	Gly 175	Gln	
Asn	Leu	Pro	Arg	Cys 180	Gly	Ile	Glu	Cys 185	Lys	Ser	Tyr	Gln	Glu	Gly 190	Leu	
Ala	Arg	Leu	Pro	Glu 195	Met	Lys	Pro	Arg 200	Ala	Gly	Thr	Glu	Ile	Arg 205	Phe	
Ser	Glu	Leu	Pro	Thr 210	Gln	Met	Phe	Pro 215	Glu	Gly	Ala	Thr	Pro	Ala 220	Glu	
Ile	Thr	Lys	His	Ser 225	Met	Asp	Leu	Ser 230	Tyr	Ala	Leu	Glu	Thr	Val 240	Leu	
Ile	Lys	Gln	Phe	Pro 245	Ser	Ser	Pro	Gln 250	Asp	Val	Leu	Gly	Glu	Leu 255	Gln	
Phe	Ala	Phe	Val	Cys 260	Phe	Leu	Leu	Gly 265	Asn	Val	Tyr	Glu	Ala	Phe 270	Glu	
His	Trp	Lys	Arg	Leu 275	Leu	His	Leu	Cys 280	Arg	Ser	Glu	Ala	Ala	Met 285		
Met	Lys	His	His	Thr 290	Leu	Tyr	Ile	Asn 295	Leu	Met	Ser	Ile	Leu	Tyr 300	His	
Gln	Leu	Gly	Glu	Ile 305	Pro	Ala	Asp	Phe 310	Phe	Val	Asp	Ile	Val	Ser 320	Gln	
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Ser	Ile	Ala	Val	Asp 340	Ala	Thr	Leu	Arg 345	Lys	Lys	Ala	Glu	Lys	Phe 350	Gln	
Ala	His	Leu	Thr	Lys 355	Lys	Phe	Arg	Trp 360	Asp	Phe	Ala	Ala	Glu	Pro 365	Glu	
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<211> 283

<212> DNA

<213> Homo sapiens

<400> 3653

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180

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<210> 3654
 <211> 88
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Ser Glu Leu Arg Leu His Ile Phe Ala Asp Trp Glu Glu Gly Arg
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 Arg Arg Gly Arg Ile Val Ser Gly Ala Ala Phe Trp Gly Cys Leu Pro
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<210> 3655
 <211> 3477
 <212> DNA
 <213> Homo sapiens

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<210> 3656

<211> 429

<212> PRT

<213> Homo sapiens

<400> 3656

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Cys	Met	Ala	Ser	Leu	Phe	Pro	Ala	Trp	Glu	Pro	Pro	Leu	Ile	Thr	Leu
			20					25					30		
Lys	Ala	Gly	Thr	Gly	Ser	Met	Arg	Ser	Gly	Phe	Pro	Ala	Lys	Ser	Ala
			35				40					45			
Met	Trp	Arg	Tyr	Arg	Gly	Thr	Pro	Phe	Ser	Lys	Ala	Val	Glu	His	Ile
	50					55				60					
Asn	Lys	Thr	Ile	Ala	Pro	Ala	Leu	Val	Ser	Lys	Lys	Leu	Asn	Val	Thr

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Glu Gln Glu Lys Ile Asp Lys Leu Met Ile Glu Met Asp Gly Thr Glu
      85          90          95
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      100          105          110
Val Cys Lys Ala Gly Ala Val Glu Lys Gly Val Pro Leu Tyr Arg His
      115          120          125
Ile Ala Asp Leu Ala Gly Asn Ser Glu Val Ile Leu Pro Val Pro Ala
      130          135          140
Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly Asn Lys Leu Ala Met
      145          150          155          160
Gln Glu Phe Met Ile Leu Pro Val Gly Ala Ala Asn Phe Arg Glu Ala
      165          170          175
Met Arg Ile Gly Ala Glu Val Tyr His Asn Leu Lys Asn Val Ile Lys
      180          185          190
Glu Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly Asp Glu Gly Gly Phe
      195          200          205
Ala Pro Asn Ile Leu Glu Asn Lys Glu Gly Leu Glu Leu Leu Lys Thr
      210          215          220
Ala Ile Gly Lys Ala Gly Tyr Thr Asp Lys Val Val Ile Gly Met Asp
      225          230          235          240
Val Ala Ala Ser Glu Phe Phe Arg Ser Gly Lys Tyr Asp Leu Asp Phe
      245          250          255
Lys Ser Pro Asp Asp Pro Ser Arg Tyr Ile Ser Pro Asp Gln Leu Ala
      260          265          270
Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro Val Val Ser Ile Glu
      275          280          285
Asp Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp Gln Lys Phe Thr Ala
      290          295          300
Ser Ala Gly Ile Gln Val Val Gly Asp Asp Leu Thr Val Thr Asn Pro
      305          310          315          320
Lys Arg Ile Ala Gln Ala Val Asn Glu Lys Ser Cys Asn Cys Leu Leu
      325          330          335
Leu Lys Val Asn Gln Ile Gly Ser Val Thr Glu Ser Leu Gln Ala Cys
      340          345          350
Lys Leu Ala Gln Ala Asn Gly Trp Gly Val Met Val Ser His Arg Ser
      355          360          365
Gly Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu Val Val Gly Leu Cys
      370          375          380
Thr Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg Ser Glu Arg Leu Ala
      385          390          395          400
Lys Tyr Asn Gln Leu Leu Arg Ile Glu Glu Glu Leu Gly Ser Lys Ala
      405          410          415
Lys Phe Ala Gly Arg Asn Phe Arg Asn Pro Leu Ala Lys
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<210> 3657

<211> 337

<212> DNA

<213> Homo sapiens

<400> 3657

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<210> 3658

<211> 99

<212> PRT

<213> Homo sapiens

<400> 3658

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Leu	Arg	Val	His	Phe	Arg	Leu	Lys	Ala	Tyr	Thr	Cys	Arg	Cys	Val	Thr
			20					25					30		
Cys	Ser	Phe	Ser	Ala	Gln	Gly	Val	His	Val	Gln	Val	Cys	Tyr	Val	Phe
		35				40					45				
Ile	Phe	Gly	Ser	Arg	Leu	Thr	Arg	Ala	Gly	Val	Pro	His	Val	His	Phe
	50					55				60					
Arg	Leu	Lys	Ala	Tyr	Met	Cys	Arg	Cys	Val	Thr	Cys	Ser	Leu	Ser	Ala
65					70					75				80	
Gln	Arg	Val	His	Val	Gln	Val	Cys	His	Met	Phe	Ile	Phe	Gly	Ser	Arg
				85					90					95	

Arg Thr Arg

<210> 3659

<211> 1025

<212> DNA

<213> Homo sapiens

<400> 3659

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 120
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 480

gaccactta aggatgaatt aaaccttgct gattctgaag tggataacca aaaacgagg
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 1025

<210> 3660

<211> 341

<212> PRT

<213> Homo sapiens

<400> 3660

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			20					25					30		
Glu	Ile	Ser	Asp	Leu	Glu	Asn	Glu	Val	Glu	Asn	Lys	Thr	Ala	Gln	Ile
		35					40					45			
Leu	Asn	Leu	Gln	Gln	His	Leu	Ser	Ala	Leu	Glu	Lys	Asp	Ile	Lys	His
	50					55					60				
Asn	Glu	Glu	Leu	Leu	Lys	Arg	Cys	Gln	Leu	His	Tyr	Lys	Glu	Leu	Lys
65					70					75				80	
Met	Lys	Ile	Arg	Lys	Asn	Ile	Ser	Glu	Ile	Arg	Glu	Leu	Glu	Asn	Ile
			85						90					95	
Glu	Glu	His	Gln	Ser	Val	Asp	Ile	Ala	Thr	Leu	Glu	Asp	Glu	Ala	Gln
		100						105					110		
Glu	Asn	Lys	Ser	Lys	Met	Lys	Met	Val	Glu	Glu	His	Met	Glu	Gln	Gln
	115						120					125			
Lys	Glu	Asn	Met	Glu	His	Leu	Lys	Ser	Leu	Lys	Ile	Glu	Ala	Glu	Asn
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Lys	Tyr	Asp	Ala	Ile	Lys	Phe	Lys	Ile	Asn	Gln	Leu	Ser	Glu	Leu	Ala
145					150					155				160	
Asp	Pro	Leu	Lys	Asp	Glu	Leu	Asn	Leu	Ala	Asp	Ser	Glu	Val	Asp	Asn
			165						170					175	
Gln	Lys	Arg	Gly	Lys	Arg	His	Tyr	Glu	Lys	Lys	Gln	Lys	Glu	His	Leu
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Asp	Thr	Leu	Asn	Lys	Lys	Lys	Arg	Glu	Leu	Asp	Met	Lys	Glu	Lys	Glu
	195						200					205			
Leu	Glu	Glu	Lys	Met	Ser	Gln	Ala	Arg	Gln	Ile	Cys	Pro	Glu	Arg	Ile

210	215	220
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	245	250
Ile Met Arg Gln Tyr Gln Glu Ala Arg Glu Thr Tyr Leu Asp Leu Asp		255
	260	265
Ser Lys Val Arg Thr Leu Lys Lys Phe Ile Lys Leu Leu Gly Glu Ile		270
	275	280
Met Glu His Arg Phe Lys Thr Tyr Gln Gln Phe Arg Arg Cys Leu Thr		285
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Leu Arg Cys Lys Leu Tyr Phe Asp Asn Leu Leu Ser Gln Arg Ala Tyr		300
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Cys Gly Lys Met Asn Phe Asp His Lys Asn Glu Thr Leu Ser Ile Ser		320
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Val Gln Pro Gly Glu		335
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<210> 3661

<211> 1117

<212> DNA

<213> Homo sapiens

<400> 3661

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<210> 3662

<211> 371

<212> PRT

<213> Homo sapiens

<400> 3662

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			20					25					30		
Pro	Ser	Val	Tyr	Pro	Tyr	Lys	Leu	Tyr	Arg	Leu	Leu	Pro	Met	Lys	Cys
		35					40					45			
Lys	Arg	Ala	Pro	Tyr	Lys	Ser	Tyr	Arg	Asn	Ser	Ser	Tyr	Glu	Asn	Ala
	50					55				60					
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Ser Ala Glu Cys Thr Arg Arg Ile Val Gly Val Asp Gly Ala Ile Lys
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 Lys Asp Lys Leu Glu Lys Ser Lys Arg Glu Arg His Asn Glu Met Glu
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 Glu Ala Val Gly Thr Ile Lys Asp Lys Tyr Glu Arg Glu Arg Ala Met
 755 760 765
 Leu Phe Asp Glu Asn Lys Lys Leu Thr Ala Glu Asn Glu Lys Leu Cys
 770 775 780
 Ser Phe Val Asp Lys Leu Thr Ala Gln Asn Arg Gln Leu Glu Asp Glu
 785 790 795 800
 Leu Gln Asp Leu Ala Ala Lys Lys Glu Ser Val Ala His Trp Glu Ala
 805 810 815
 Gln Ile Ala Glu Ile Ile Gln Trp Val Ser Asp Glu Lys Asp Ala Arg
 820 825 830
 Gly Tyr Leu Gln Ala Leu Ala Ser Lys Met Thr Glu Glu Leu Glu Ala
 835 840 845
 Leu Arg Ser Ser Ser Leu Gly Ser Arg Thr Leu Asp Pro Leu Trp Lys
 850 855 860
 Val Arg Arg Ser Gln Lys Leu Asp Met Ser Ala Arg Leu Glu Leu Gln
 865 870 875 880
 Ser Ala Leu Glu Ala Glu Ile Arg Ala Lys Gln Leu Val Gln Glu Glu
 885 890 895
 Leu Arg Lys Val Lys Asp Ala Asn Leu Thr Leu Glu Ser Lys Leu Lys
 900 905 910
 Asp Ser Glu Ala Lys Asn Arg Glu Leu Leu Glu Glu Met Glu Ile Leu
 915 920 925
 Lys Lys Lys Met Glu Glu Lys Phe Arg Ala Asp Thr Gly Leu Lys Leu
 930 935 940
 Pro Asp Phe Gln Asp Ser Ile Phe Glu Tyr Phe Asn Thr Ala Pro Leu
 945 950 955 960
 Ala His Asp Leu Thr Phe Arg Asp Ser Leu Ser Ser Ser Ser Ala Ser
 965 970 975
 Ser Leu Leu Ala Phe Trp Glu Glu Thr Ser Ser Ala Ser Glu Gln Glu
 980 985 990
 Thr Gln Ala Pro Lys Pro Glu Ala Ser Pro Ser Met Ser Val Ala Ala
 995 1000 1005
 Ser Glu Gln Gln Glu Asp Met Ala Arg Pro Pro Gln Arg Pro Ser Ala
 1010 1015 1020
 Val Pro Leu Pro Thr Thr Gln Ala Leu Ala Leu Ala Gly Pro Lys Pro
 1025 1030 1035 1040
 Lys Ala His Gln Phe Ser Ile Lys Ser Phe Ser Ser Pro Thr Gln Cys
 1045 1050 1055
 Ser His Cys Thr Ser Leu Met Val Gly Leu Ile Arg Gln Gly Tyr Ala
 1060 1065 1070
 Cys Glu Val Cys Ser Phe Ala Cys His Val Ser Cys Lys Asp Gly Ala
 1075 1080 1085
 Pro Gln Val Cys Pro Ile Pro Pro Glu Gln Ser Lys Arg Pro Leu Gly

1090 1095 1100
 Val Asp Val Gln Arg Gly Ile Gly Thr Ala Tyr Lys Gly His Val Lys
 1105 1110 1115 1120
 Val Pro Lys Pro Thr Gly Val Lys Lys Gly Trp Gln Arg Ala Tyr Ala
 1125 1130 1135
 Val Val Cys Asp Cys Lys Leu Phe Leu Tyr Asp Leu Pro Glu Gly Lys
 1140 1145 1150
 Ser Thr Gln Pro Gly Val Ile Ala Ser Gln Val Leu Asp Leu Arg Asp
 1155 1160 1165
 Asp Glu Phe Ser Val Ser Ser Val Leu Ala Ser Asp Val Ile His Ala
 1170 1175 1180
 Thr Arg Arg Asp Ile Pro Cys Ile Phe Arg Val Thr Ala Ser Leu Leu
 1185 1190 1195 1200
 Gly Ala Pro Ser Lys Thr Ser Ser Leu Leu Ile Leu Thr Glu Asn Glu
 1205 1210 1215
 Asn Glu Lys Arg Lys Trp Val Gly Ile Leu Glu Gly Leu Gln Ser Ile
 1220 1225 1230
 Leu His Lys Asn Arg Leu Arg Asn Gln Val Val His Val Pro Leu Glu
 1235 1240 1245
 Ala Tyr Asp Ser Ser Leu Pro Leu Ile Lys Ala Ile Leu Thr Ala Ala
 1250 1255 1260
 Ile Val Asp Ala Asp Arg Ile Ala Val Gly Leu Glu Glu Gly Leu Tyr
 1265 1270 1275 1280
 Val Ile Glu Val Thr Arg Asp Val Ile Val Arg Ala Ala Asp Cys Lys
 1285 1290 1295
 Lys Val His Gln Ile Glu Leu Ala Pro Arg Glu Lys Ile Val Ile Leu
 1300 1305 1310
 Leu Cys Gly Arg Asn His His Val His Leu Tyr Pro Trp Ser Ser Leu
 1315 1320 1325
 Asp Gly Ala Glu Gly Ser Phe Asp Ile Lys Leu Pro Glu Thr Lys Gly
 1330 1335 1340
 Cys Gln Leu Met Ala Thr Ala Thr Leu Lys Arg Asn Ser Gly Thr Cys
 1345 1350 1355 1360
 Leu Phe Val Ala Val Lys Arg Leu Ile Leu Cys Tyr Glu Ile Gln Arg
 1365 1370 1375
 Thr Lys Pro Phe His Arg Lys Phe Asn Glu Ile Val Ala Pro Gly Ser
 1380 1385 1390
 Val Gln Cys Leu Ala Val Leu Arg Asp Arg Leu Cys Val Gly Tyr Pro
 1395 1400 1405
 Ser Gly Phe Cys Leu Leu Ser Ile Gln Gly Asp Gly Gln Pro Leu Asn
 1410 1415 1420
 Leu Val Asn Pro Asn Asp Pro Ser Leu Ala Phe Leu Ser Gln Gln Ser
 1425 1430 1435 1440
 Phe Asp Ala Leu Cys Ala Val Glu Leu Glu Ser Glu Glu Tyr Leu Leu
 1445 1450 1455
 Cys Phe Ser His Met Gly Leu Tyr Val Asp Pro Gln Gly Arg Arg Ala
 1460 1465 1470
 Arg Ala Gln Glu Leu Met Trp Pro Ala Ala Pro Val Ala Cys Ser Cys
 1475 1480 1485
 Ser Pro Thr His Val Thr Val Tyr Ser Glu Tyr Gly Val Asp Val Phe
 1490 1495 1500
 Asp Val Arg Thr Met Glu Trp Val Gln Thr Ile Gly Leu Arg Arg Ile
 1505 1510 1515 1520
 Arg Pro Leu Asn Ser Glu Gly Thr Leu Asn Leu Leu Asn Cys Glu Pro

	1525		1530		1535
Pro Arg Leu Ile Tyr Phe Lys Ser Lys Phe Ser Gly Ala Val Leu Asn					
	1540		1545		1550
Val Pro Asp Thr Ser Asp Asn Ser Lys Lys Gln Met Leu Arg Thr Arg					
	1555		1560		1565
Ser Lys Arg Arg Phe Val Phe Lys Val Pro Glu Glu Glu Arg Leu Gln					
	1570		1575		1580
Gln Arg Arg Glu Met Leu Arg Asp Pro Glu Leu Arg Ser Lys Met Ile					
1585		1590		1595	1600
Ser Asn Pro Thr Asn Phe Asn His Val Ala His Met Gly Pro Gly Asp					
	1605		1610		1615
Gly Met Gln Val Leu Met Asp Leu Pro Leu Ser Ala Val Pro Pro Ser					
	1620		1625		1630
Gln Glu Glu Arg Pro Gly Pro Ala Pro Thr Asn Leu Ala Arg Gln Pro					
	1635		1640		1645
Pro Ser Arg Asn Lys Pro Tyr Ile Ser Trp Pro Ser Ser Gly Gly Ser					
	1650		1655		1660
Glu Pro Ser Val Thr Val Pro Leu Arg Ser Met Ser Asp Pro Asp Gln					
1665		1670		1675	1680
Asp Phe Asp Lys Glu Pro Asp Ser Asp Ser Thr Lys His Ser Thr Pro					
	1685		1690		1695
Ser Asn Ser Ser Asn Pro Ser Gly Pro Pro Ser Pro Asn Ser Pro His					
	1700		1705		1710
Arg Ser Gln Leu Pro Leu Glu Gly Leu Glu Gln Pro Ala Cys Asp Thr					
	1715		1720		1725

<210> 3667

<211> 505

<212> DNA

<213> Homo sapiens

<400> 3667

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taattcccta tgtaacaag tttaataagt catctgtaac agtacaatta agtccatata
120

tgattgtatt tactctttct tccctactca tagtatgcgt tccattttga ggaatcacag
180

atatcgaaga gatgccagaa cactagaaga tgaagaagag atgtggttta acacagatga
240

agatgacatg gaagatggag aagctgtagt gtctccatct gacaaaacta aaaatgatga
300

tgatattatg gatccaataa gtaaattcat ggaaaggaag aaattaaaag aaagtgagga
360

aaaggaagtg cttctgaaaa caaacctttc tggacggcag agcccaagtt tcaagctttc
420

cctgtccagt ggaacgaaga ctaacctcac cagccagtca tctacaacaa atctgcctgg
480

ttctccggga tcacctggat cccca
505

<210> 3668

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3668

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Met Arg Ser Ile Leu Arg Asn His Arg Tyr Arg Arg Asp Ala Arg Thr
1           5           10           15
Leu Glu Asp Glu Glu Glu Met Trp Phe Asn Thr Asp Glu Asp Asp Met
20           25           30
Glu Asp Gly Glu Ala Val Val Ser Pro Ser Asp Lys Thr Lys Asn Asp
35           40           45
Asp Asp Ile Met Asp Pro Ile Ser Lys Phe Met Glu Arg Lys Lys Leu
50           55           60
Lys Glu Ser Glu Glu Lys Glu Val Leu Leu Lys Thr Asn Leu Ser Gly
65           70           75           80
Arg Gln Ser Pro Ser Phe Lys Leu Ser Leu Ser Ser Gly Thr Lys Thr
85           90           95
Asn Leu Thr Ser Gln Ser Ser Thr Thr Asn Leu Pro Gly Ser Pro Gly
100          105          110
Ser Pro Gly Ser Pro
115

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<210> 3669

<211> 1226

<212> DNA

<213> Homo sapiens

<400> 3669

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cttgactccc agcattctca tctcaccttg ccatactata agatgtcttg tttgtctatg
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gctgagggttc tggcccgac ggactggaca gtagaggatg gattacagaa atacgagaga
120
ggattaatct tttacattaa tcattcactt tatgaaaacc tggatgaaga attaaatgaa
180
gaattagcag caaaagtggc tcagatgttt tatgtggctg agccaaagca agtgcccat
240
attctctgta gtccttctat gaagaatatt aatcctttaa ctgccatgag ctatctaagg
300
aagatggata cttctgggtt ttcattccatc ttagtgacac tgagcaaggc agcagtggca
360
ctgaaaatgg gagatcttga cgtgtacaga aatgaaatga aaagccatcc agagatgaag
420
ttggtgtgtg gcttcatttt ggaaccacgc ctggtgattc aacacaggaa gggacagatt
480
gttccaactg agcttgcgac tcacttgaag gagactcagc caggattgct tgtggcttca
540
gtcctgggat tgcagaagaa cagcaaaatt gggattgaag aagcagattc tttctttaag
600
gtgctttgtg gtaaggatga agataccatc cctcagctct tgatagactt ttgggaagct
660
cagctagtgg catgtctccc agatgtggtg cttcaggaac tctttttcaa actcacatca
720
cagtacatct ggagattgtc taagaggcag cctcctgaca ccacaccatt gcgaacatcg
780
gaggatctga taaatgcctg tagtcattat ggcttaattt atccatgggt tcacgtcgta
840

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atatcatctg attctttagc tgataaaaat tatacagaag atctttcaaa attacagtct
 900
 cttatatgtg gtccttcatt tgacatagct tccattattc cggtcttgga gccactttca
 960
 gaagacacta ttgccggcct cagtgtccat gttctgtgtc gtacacgctt gaaagagtat
 1020
 gaacagtgca tagacatact gttagagaga tgcccggagg cagtcattcc atatgcta
 1080
 catgaactga aagaagagaa ccggactctg tgggtggaaaa aactgttgcc tgaactttgt
 1140
 cagagaataa aatgtggtgg agagaagtat caactctacc tgtcatcatt aaaagcttaa
 1200
 ttttcacggg aactgtggaa gctagc
 1226

<210> 3670

<211> 385

<212> PRT

<213> Homo sapiens

<400> 3670

Met	Ser	Gly	Leu	Ser	Met	Ala	Glu	Val	Leu	Ala	Arg	Thr	Asp	Trp	Thr
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Val	Glu	Asp	Gly	Leu	Gln	Lys	Tyr	Glu	Arg	Gly	Leu	Ile	Phe	Tyr	Ile
			20					25					30		
Asn	His	Ser	Leu	Tyr	Glu	Asn	Leu	Asp	Glu	Glu	Leu	Asn	Glu	Glu	Leu
			35				40					45			
Ala	Ala	Lys	Val	Val	Gln	Met	Phe	Tyr	Val	Ala	Glu	Pro	Lys	Gln	Val
			50			55					60				
Pro	His	Ile	Leu	Cys	Ser	Pro	Ser	Met	Lys	Asn	Ile	Asn	Pro	Leu	Thr
65					70				75					80	
Ala	Met	Ser	Tyr	Leu	Arg	Lys	Met	Asp	Thr	Ser	Gly	Phe	Ser	Ser	Ile
			85					90						95	
Leu	Val	Thr	Leu	Ser	Lys	Ala	Ala	Val	Ala	Leu	Lys	Met	Gly	Asp	Leu
			100					105					110		
Asp	Val	Tyr	Arg	Asn	Glu	Met	Lys	Ser	His	Pro	Glu	Met	Lys	Leu	Val
			115				120					125			
Cys	Gly	Phe	Ile	Leu	Glu	Pro	Arg	Leu	Leu	Ile	Gln	His	Arg	Lys	Gly
			130				135				140				
Gln	Ile	Val	Pro	Thr	Glu	Leu	Ala	Thr	His	Leu	Lys	Glu	Thr	Gln	Pro
145					150					155					160
Gly	Leu	Leu	Val	Ala	Ser	Val	Leu	Gly	Leu	Gln	Lys	Asn	Ser	Lys	Ile
			165					170						175	
Gly	Ile	Glu	Glu	Ala	Asp	Ser	Phe	Phe	Lys	Val	Leu	Cys	Gly	Lys	Asp
			180					185					190		
Glu	Asp	Thr	Ile	Pro	Gln	Leu	Leu	Ile	Asp	Phe	Trp	Glu	Ala	Gln	Leu
			195				200				205				
Val	Ala	Cys	Leu	Pro	Asp	Val	Val	Leu	Gln	Glu	Leu	Phe	Phe	Lys	Leu
			210				215				220				
Thr	Ser	Gln	Tyr	Ile	Trp	Arg	Leu	Ser	Lys	Arg	Gln	Pro	Pro	Asp	Thr
225					230					235					240
Thr	Pro	Leu	Arg	Thr	Ser	Glu	Asp	Leu	Ile	Asn	Ala	Cys	Ser	His	Tyr
			245						250					255	
Gly	Leu	Ile	Tyr	Pro	Trp	Val	His	Val	Val	Ile	Ser	Ser	Asp	Ser	Leu

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<210> 3671
<211> 828
<212> DNA
<213> Homo sapiens
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<210> 3672

<211> 124
 <212> PRT
 <213> Homo sapiens

<400> 3672
 Met Ser Glu Cys Pro Leu Ile Leu Tyr Ile His Lys His Ile Asp Thr
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 Tyr Ser Gln Ser Tyr Leu Phe Asn Asp Leu Phe Tyr Pro Val Tyr Ser
 20 25 30
 Gly Gly Arg Met Val Thr Tyr Glu His Leu Arg Glu Val Val Phe Gly
 35 40 45
 Lys Ser Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly
 50 55 60
 Met Met Ala Gly Val Ile Gly Gln Phe Leu Ala Asn Pro Thr Asp Leu
 65 70 75 80
 Val Lys Val Gln Met Gln Met Glu Gly Lys Arg Lys Leu Glu Gly Lys
 85 90 95
 Pro Leu Arg Phe Arg Gly Val His His Ala Phe Ala Lys Ile Leu Ala
 100 105 110
 Glu Gly Gly Ile Arg Gly Leu Trp Ala Gly Trp Val
 115 120

<210> 3673
 <211> 1052
 <212> DNA
 <213> Homo sapiens

<400> 3673
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 gttcattctg ggagcgctgc tgggtggcat tattatgcat gtataaagtc attcagtgat
 120
 gagcagtggt acagcttcaa tgatcaacat gtcagcagga taacacaaga ggacattaag
 180
 aaaacacatg gtggatcttc aggaagcaga ggatattatt ctagtgcttt cgcaagttcc
 240
 acaaatgcat atatgctgat ctatagactg aaggatccag ccagaaatgc aaaatttcta
 300
 gaagtggatg aatacccaga acatattaaa aacttgggtgc agaaagagag agagttggaa
 360
 gaacaagaaa agagacaacg agaaattgag cgcaatacat gcaagataaa attattctgt
 420
 ttgcataccta caaaacaagt aatgatggaa aataaattgg aggttcataa ggataagaca
 480
 ttaaaggaag cagtagaaat ggcttataag atgatggatt tagaagaggt aataccctg
 540
 gattgctgtc gccttggtta atatatgag tttcatgatt atctagaacg gtcatatgaa
 600
 ggagaagaag atacaccaat ggggcttcta ctaggtggcg tcaagtcaac atatatgttt
 660
 gatctgctgt tggagacgag aaagcctgat cagggttttcc aatcttataa acctggaggg
 720
 gagccatttt acaccatttt tagttgggtct gtacttagaa ttttcctgag aaaggttttt
 780

tttttattgt agcaatgaac ataatttaca ttttgtatat ggtcttaciaa tgtagaataa
 840
 ttttgacagg ttgagaagta ctcagcacca gcttggaatt aagttctaga ttacttgcaa
 900
 agagttgtgt acataatttt aaaaacaaca aaaaacaaca aagcttctag cttacggtct
 960
 tcagtgggtt ttttcttctc cagtgggagg tactgaatca ttctggatgc tgtcaatccc
 1020
 taaagttatc aattgctctc ttaggaagat ct
 1052

<210> 3674
 <211> 263
 <212> PRT
 <213> Homo sapiens

<400> 3674
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 Phe Ser Val Met Val His Ser Gly Ser Ala Ala Gly Gly His Tyr Tyr
 20 25 30
 Ala Cys Ile Lys Ser Phe Ser Asp Glu Gln Trp Tyr Ser Phe Asn Asp
 35 40 45
 Gln His Val Ser Arg Ile Thr Gln Glu Asp Ile Lys Lys Thr His Gly
 50 55 60
 Gly Ser Ser Gly Ser Arg Gly Tyr Tyr Ser Ser Ala Phe Ala Ser Ser
 65 70 75 80
 Thr Asn Ala Tyr Met Leu Ile Tyr Arg Leu Lys Asp Pro Ala Arg Asn
 85 90 95
 Ala Lys Phe Leu Glu Val Asp Glu Tyr Pro Glu His Ile Lys Asn Leu
 100 105 110
 Val Gln Lys Glu Arg Glu Leu Glu Gln Glu Lys Arg Gln Arg Glu
 115 120 125
 Ile Glu Arg Asn Thr Cys Lys Ile Lys Leu Phe Cys Leu His Pro Thr
 130 135 140
 Lys Gln Val Met Met Glu Asn Lys Leu Glu Val His Lys Asp Lys Thr
 145 150 155 160
 Leu Lys Glu Ala Val Glu Met Ala Tyr Lys Met Met Asp Leu Glu Glu
 165 170 175
 Val Ile Pro Leu Asp Cys Cys Arg Leu Val Lys Tyr Asp Glu Phe His
 180 185 190
 Asp Tyr Leu Glu Arg Ser Tyr Glu Gly Glu Glu Asp Thr Pro Met Gly
 195 200 205
 Leu Leu Leu Gly Gly Val Lys Ser Thr Tyr Met Phe Asp Leu Leu Leu
 210 215 220
 Glu Thr Arg Lys Pro Asp Gln Val Phe Gln Ser Tyr Lys Pro Gly Gly
 225 230 235 240
 Glu Pro Phe Tyr Thr Ile Phe Ser Trp Ser Val Leu Arg Ile Phe Leu
 245 250 255
 Arg Lys Val Phe Phe Leu Leu
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<210> 3675
 <211> 837

<212> DNA

<213> Homo sapiens

<400> 3675

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nntccggaga tgtgaagaag gggggcgagc ggacaggaag atgaaggag caaagctgcc
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120
gacagctata ttgtgcgtgt caaggctgtg gttatgacca gagatgactc cagcggggga
180
tggttccac aggaaggagg cgggatcagt cgcgtcgggg tctgtaaggt catgcacccc
240
gaaggcaatg gacgaagcgg ctttctcatc catggtgaac gacagaaaga caaactggtg
300
gtattggaat gctatgtaag aaaggacttg gtctacacca aagccaatcc aacgtttcat
360
cactggaagg tcgataatag gaagtttgga cttactttcc aaagccctgc tgatgcccg
420
gcctttgaca ggggagtaag gaaagcaatc gaagacctta tagaagaagt agaaaatgat
480
tctggcgggc ccagaaggct cctggcctac ccactgtcct cctgtaatca gaggcccagg
540
gtgtacagct gccactgaaa aggaaaggga tctgtgacct ctggagccct ggttcggttt
600
aggccttggt ctatgggtaa gtgagtagta ggcattgtgt tacatctgat cgtggcctgg
660
aggcccttg ggcagtcagt tctcatggtg ggcttgacta gagtccacag atgcaaacac
720
aaaaattctc cactgcagca catccaggtg tcaaatcaga ggggttaaaga agccatagac
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agggccctgt gaagaaagaa atatcaagca aggcattgta ataccaaatt cagatct
837

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<210> 3676

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3676

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Met Thr Glu Glu Thr His Pro Asp Asp Asp Ser Tyr Ile Val Arg Val
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Lys Ala Val Val Met Thr Arg Asp Asp Ser Ser Gly Gly Trp Phe Pro
          20           25           30
Gln Glu Gly Gly Gly Ile Ser Arg Val Gly Val Cys Lys Val Met His
          35           40           45
Pro Glu Gly Asn Gly Arg Ser Gly Phe Leu Ile His Gly Glu Arg Gln
          50           55           60
Lys Asp Lys Leu Val Val Leu Glu Cys Tyr Val Arg Lys Asp Leu Val
65           70           75           80
Tyr Thr Lys Ala Asn Pro Thr Phe His His Trp Lys Val Asp Asn Arg
          85           90           95
Lys Phe Gly Leu Thr Phe Gln Ser Pro Ala Asp Ala Arg Ala Phe Asp
          100          105          110
Arg Gly Val Arg Lys Ala Ile Glu Asp Leu Ile Glu Glu Val Glu Asn

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115 120 125
 Asp Ser Gly Gly Pro Arg Arg Leu Leu Ala Tyr Pro Leu Ser Ser Cys
 130 135 140
 Asn Gln Arg Pro Arg Val Tyr Ser Cys His
 145 150

<210> 3677
 <211> 418
 <212> DNA
 <213> Homo sapiens

<400> 3677
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 ttcattgcaa agctcgtcaa gaatctccta ggcgagatgc ctctgtgggt ctgccagagt
 120
 tgccgaaaga gcatggagga agatgaaagg cagacaggtc gagaacatgc agtggcgatc
 180
 tccttgtcac acacatcctg caaatcacag tcttgtggag atgactctca ttcgtcctcg
 240
 tcttctcct catcatcctc atcctcgtcc tcctcttct gacctgggaa ctcgaggagac
 300
 tgggatccta gctcgttctc gtcggcacat aagctctcgg gcctctggaa ttccccacat
 360
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 418

<210> 3678
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 3678
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 Leu Pro Pro Asp Phe Met Pro Lys Leu Val Lys Asn Leu Leu Gly Glu
 20 25 30
 Met Pro Leu Trp Val Cys Gln Ser Cys Arg Lys Ser Met Glu Glu Asp
 35 40 45
 Glu Arg Gln Thr Gly Arg Glu His Ala Val Ala Ile Ser Leu Ser His
 50 55 60
 Thr Ser Cys Lys Ser Gln Ser Cys Gly Asp Asp Ser His Ser Ser Ser
 65 70 75 80
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Cys Pro Gly
 85 90 95
 Asn Ser Gly Asp Trp Asp Pro Ser Ser Phe Leu Ser Ala His Lys Leu
 100 105 110
 Ser Gly Leu Trp Asn Ser Pro His Ser Ser Gly Ala Met Pro Gly Ser
 115 120 125
 Ser Leu Gly Ser Pro Pro Thr Ile Pro Gly Ala
 130 135

<210> 3679
 <211> 567

<212> DNA

<213> Homo sapiens

<400> 3679

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 120
 gagatcgag agatcaaggc ccagctggag acagccctga agtggaggaa ctatgaggtg
 180
 aagctgcggc tgctgctgca cctggaggaa ctgcagatgg agcatgatat ccggcactat
 240
 gacctggagt cgggtgcccac gacctgggac cctgtggacc agaaccacag gctgctcacg
 300
 ctggagggtt ctggagtgc tgagagccgc ccctcagtgc tacggggcga ccacctgtt
 360
 gcccttttgt cctcggagac acaccaggag gaccccatca catataaggg ctttgtgcac
 420
 aaggtggaat tggaccgtgt caagctgagc tttccatga gcctcctgag ccgctttgtg
 480
 gatgggctga cttcaaggt gaactttacc ttcaaccgcc agccgtgag agtccagcac
 540
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 567

<210> 3680

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3680

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Tyr	Pro	Pro	Pro	Arg	Leu	Arg	Gln	Leu	Leu	Pro	Met	Leu	Leu	Gln	Gly
			20					25					30		
Thr	Ser	Ile	Phe	Thr	Ala	Pro	Lys	Glu	Ile	Ala	Glu	Ile	Lys	Ala	Gln
		35					40					45			
Leu	Glu	Thr	Ala	Leu	Lys	Trp	Arg	Asn	Tyr	Glu	Val	Lys	Leu	Arg	Leu
	50					55					60				
Leu	Leu	His	Leu	Glu	Glu	Leu	Gln	Met	Glu	His	Asp	Ile	Arg	His	Tyr
65				70					75					80	
Asp	Leu	Glu	Ser	Val	Pro	Met	Thr	Trp	Asp	Pro	Val	Asp	Gln	Asn	Pro
			85						90					95	
Arg	Leu	Leu	Thr	Leu	Glu	Val	Pro	Gly	Val	Thr	Glu	Ser	Arg	Pro	Ser
		100						105					110		
Val	Leu	Arg	Gly	Asp	His	Leu	Phe	Ala	Leu	Leu	Ser	Ser	Glu	Thr	His
	115					120					125				
Gln	Glu	Asp	Pro	Ile	Thr	Tyr	Lys	Gly	Phe	Val	His	Lys	Val	Glu	Leu
	130					135					140				
Asp	Arg	Val	Lys	Leu	Ser	Phe	Ser	Met	Ser	Leu	Leu	Ser	Arg	Phe	Val
145				150					155					160	
Asp	Gly	Leu	Thr	Phe	Lys	Val	Asn	Phe	Thr	Phe	Asn	Arg	Gln	Pro	Leu
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 <213> Homo sapiens

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<210> 3682
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 3682
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 35 40 45
 Gly Pro Pro Gly Pro Thr Phe Phe Arg Gln Gln Asp Gly Leu Leu Arg
 50 55 60
 Gly Gly Tyr Glu Ala Gln Glu Pro Leu Cys Pro Ala Val Pro Pro Arg
 65 70 75 80
 Lys Ala Val Pro Val Thr Ser Phe Thr Tyr Ile Asn Glu Asp Phe Arg

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 <211> 384
 <212> PRT
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 35 40 45
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 Phe Val Cys Lys Met Ser Ala Asn Pro Ala Thr Gly Leu Leu Asp Pro
 65 70 75 80
 Cys Val Phe Arg Val Ser Val Arg Lys Glu Leu Lys Gly Gly Lys Ala
 85 90 95
 Tyr Ser Lys Leu Gly Phe Ala Asp Leu Asn Leu Ala Glu Phe Ala Gly
 100 105 110
 Ser Gly Ser Thr Val Arg Cys Cys Leu Leu Glu Gly Tyr Asp Thr Lys
 115 120 125
 Asn Thr Arg Gln Asp Asn Ser Ile Leu Lys Val Thr Ile Gly Met Phe
 130 135 140
 Leu Leu Ser Gly Asp Pro Cys Phe Lys Thr Pro Pro Ser Thr Ala Lys
 145 150 155 160
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 165 170 175
 Gly Gly Gly Thr Ser Ser Gly Gly Ser Ser Thr Asn Ser Leu Thr Gly
 180 185 190
 Ser Arg Pro Pro Lys Ala Arg Pro Thr Ile Leu Ser Ser Gly Leu Pro
 195 200 205
 Glu Glu Pro Asp Gln Asn Leu Ser Ser Pro Glu Glu Val Phe His Ser
 210 215 220
 Gly His Ser Arg Asn Ser Ser Tyr Ala Ser Gln Gln Ser Lys Ile Ser
 225 230 235 240
 Gly Tyr Ser Thr Glu His Ser His Ser Ser Ser Leu Ser Asp Leu Thr
 245 250 255
 His Arg Arg Asn Thr Ser Thr Ser Ser Ser Ala Ser Gly Gly Leu Gly
 260 265 270
 Met Thr Val Glu Gly Pro Glu Gly Ser Glu Arg Glu His Arg Pro Pro
 275 280 285
 Glu Lys Pro Pro Arg Pro Pro Arg Pro Leu His Leu Ser Asp Arg Ser
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 305 310 315 320
 Asp Thr Arg Ile Asp Ala Asp Ala Ile Val Glu Lys Ile Val Gln Ser


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<210> 3688

<211> 57

<212> PRT

<213> Homo sapiens

<400> 3688

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<210> 3689

<211> 1562

<212> DNA

<213> Homo sapiens

<400> 3689

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<210> 3690
<211> 504
<212> PRT
<213> Homo sapiens

<400> 3690
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35 40 45
Arg Ser Gly Arg Ala Thr Asn His Asp Ser Cys Asp Ser Cys Lys Glu
50 55 60
Gly Gly Asp Leu Leu Cys Cys Asp His Cys Pro Ala Ala Phe His Leu
65 70 75 80
Gln Cys Cys Asn Pro Pro Leu Ser Glu Glu Met Leu Pro Pro Gly Glu
85 90 95
Trp Met Cys His Arg Cys Thr Val Arg Arg Lys Lys Arg Glu Gln Lys
100 105 110
Lys Glu Leu Gly His Val Asn Gly Leu Val Asp Lys Ser Gly Lys Arg
115 120 125
Thr Thr Ser Pro Ser Ser Asp Thr Asp Leu Leu Asp Arg Ser Ala Ser
130 135 140
Lys Thr Glu Leu Lys Ala Ile Ala His Ala Arg Ile Leu Glu Arg Arg
145 150 155 160
Ala Ser Arg Pro Gly Thr Pro Thr Ser Ser Ala Ser Thr Glu Thr Pro
165 170 175
Thr Ser Glu Gln Asn Asp Val Asp Glu Asp Ile Ile Asp Val Asp Glu
180 185 190
Glu Pro Val Ala Ala Glu Pro Asp Tyr Val Gln Pro Gln Leu Arg Arg
195 200 205
Pro Phe Glu Leu Leu Ile Ala Ala Met Glu Arg Asn Pro Thr Gln

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Ser Lys Arg Arg Arg Lys Glu Glu Thr Thr Gly Lys Asn Val Lys Lys		240
	245	250
Thr Gln His Glu Leu Asp His Asn Gly Leu Val Pro Leu Pro Val Lys		255
	260	265
Val Cys Phe Thr Cys Asn Arg Ser Cys Arg Val Ala Pro Leu Ile Gln		270
	275	280
Cys Asp Tyr Cys Pro Leu Leu Phe His Met Asp Cys Leu Glu Pro Pro		285
	290	295
Leu Thr Ala Met Pro Leu Gly Arg Trp Met Cys Pro Asn His Ile Glu		300
305	310	315
His Val Val Leu Asn Gln Lys Asn Met Thr Leu Ser Asn Arg Cys Gln		320
	325	330
Val Phe Asp Arg Phe Gln Asp Thr Val Ser Gln His Val Val Lys Val		335
	340	345
Asp Phe Leu Asn Arg Ile His Lys Lys His Pro Pro Asn Arg Arg Val		350
	355	360
Leu Gln Ser Val Lys Arg Arg Ser Leu Lys Val Pro Asp Ala Ile Lys		365
	370	375
Ser Gln Tyr Gln Phe Pro Pro Pro Leu Ile Ala Pro Ala Ala Ile Arg		380
385	390	395
Asp Gly Glu Leu Ile Cys Asn Gly Ile Pro Glu Glu Ser Gln Met His		400
	405	410
Leu Leu Asn Ser Glu His Leu Ala Thr Gln Ala Glu Gln Gln Glu Trp		415
	420	425
Leu Cys Ser Val Val Ala Leu Gln Cys Ser Ile Leu Lys His Leu Ser		430
	435	440
Ala Lys Gln Met Pro Ser His Trp Asp Ser Glu Gln Thr Glu Lys Ala		445
	450	455
Asp Ile Lys Pro Val Ile Val Thr Asp Ser Ser Val Thr Thr Ser Leu		460
465	470	475
Gln Thr Ala Asp Lys Thr Pro Thr Pro Ser His Tyr Pro Leu Ser Cys		480
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<210> 3691

<211> 418

<212> DNA

<213> Homo sapiens

<400> 3691

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<210> 3692
 <211> 94
 <212> PRT
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 35 40 45
 Arg Ile Ala Arg Ile Arg Cys Gln Leu Lys Ala Val Cys Gln Pro Arg
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<210> 3693
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<212> PRT
<213> Homo sapiens
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Cys	Cys	Ala	Pro	Leu	Gly	Val	Arg	Ala	Ser	Gly	Arg	Ala	Val	Pro	Arg		
		35					40					45					
Ala	Val	Phe	Ala	Gly	Met	Lys	Arg	Pro	Cys	Glu	Glu	Thr	Thr	Ser	Glu		
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Ser	Asp	Met	Asp	Glu	Thr	Ile	Asp	Val	Gly	Ser	Glu	Asn	Asn	Tyr	Ser		
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				85					90					95			
Ser	Gln	Ile	Met	Ala	Arg	Lys	Lys	Arg	Arg	Gly	Ile	Ile	Glu	Lys	Arg		
			100					105					110				
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		115					120					125					
Pro	Thr	Ala	Phe	Glu	Lys	Gln	Gly	Ser	Ala	Lys	Leu	Glu	Lys	Ala	Glu		
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				165					170					175			
Ile	Gly	Phe	Arg	Glu	Cys	Leu	Thr	Glu	Val	Ala	Arg	Tyr	Leu	Ser	Ser		
			180					185					190				
Val	Glu	Gly	Leu	Asp	Ser	Ser	Asp	Pro	Leu	Arg	Val	Arg	Leu	Val	Ser		
		195					200				205						
His	Leu	Ser	Thr	Cys	Ala	Thr	Gln	Arg	Glu	Ala	Ala	Ala	Met	Thr	Ser		
	210					215					220						
Ser	Met	Ala	His	His	Xaa	Ser	Ser	Ala	Pro	Pro	Ala	Ser	Leu	Gly	Arg		
225					230					235				240			
Arg	Leu	Pro	Pro	Pro	Ala	Arg	Ser	Pro	Ala	Pro	Ala	Gln	Arg	Pro	Pro		
				245					250					255			
Cys	Leu	Arg	Val	Asn	Pro	Leu	Ser	Pro	Leu	His	Asn	Phe	Arg	Ser	Ala		
			260					265				270					
Ser	Ala	His	Gly	Ser	Ala	Leu	Leu	Thr	Ala	Thr	Phe	Ala	His	Ala	Asp		

275	280	285
Ser Ala Leu Arg Met Pro Ser Thr Gly Ser Val Ala Pro Cys Val Pro		
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Pro Leu Ser Thr Ser Leu Leu Ser Leu Ser Ala Thr Val His Ala Ala		
305	310	315
Ala Ala Ala Ala Thr Ala Ala Ala His Ser Phe Pro Leu Ser Phe Ala		
	325	330
Gly Ala Phe Pro Met Leu Pro Pro Asn Ala Ala Ala Val Ala Ala		
	340	345
Ala Thr Ala Ile Ser Pro Pro Leu Ser Val Ser Ala Thr Ser Ser Pro		
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<210> 3695

<211> 1615

<212> DNA

<213> Homo sapiens

<400> 3695

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240
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<210> 3696
 <211> 146
 <212> PRT
 <213> Homo sapiens

<400> 3696
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 35 40 45
 Cys Asn Ser Trp Ser Ser Pro Gln Leu Gln Ser Ser Leu Pro Glu Pro
 50 55 60
 His Asp Arg Pro Leu Ala Leu Pro Leu Ser Asp Ser Gln Ile Gln Trp
 65 70 75 80
 Phe Tyr Gln Ala Leu Asn Leu Ser Leu Pro Leu Pro Asn Phe His Ala
 85 90 95
 Gly Thr Glu Pro Asp Gly Leu Asp Pro Met Val Thr Leu Ser Leu Asn
 100 105 110
 Leu Gly Leu Ser Phe Ala Glu Leu Arg Arg Met Tyr Leu Phe Leu Asn
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 Pro Ser
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<210> 3697
 <211> 550
 <212> DNA
 <213> Homo sapiens

<400> 3697

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 120
 cagcctgtgt gcccaaccacg atgcaaacat ggtgagtgtg tcggggccaaa caagtgaag
 180
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 240
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 300
 aacggatata tgctcatgcc ggatgggtcc tgctcaagtg ccctgacctg ctccatggca
 360
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 420
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<210> 3698

<211> 183

<212> PRT

<213> Homo sapiens

<400> 3698

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Ile	Gly	Leu	Cys	Arg	Tyr	Gly	Gly	Arg	Ile	Asp	Cys	Cys	Trp	Gly	Trp
		20						25					30		
Ala	Arg	Gln	Ser	Trp	Gly	Gln	Cys	Gln	Pro	Val	Cys	Gln	Pro	Arg	Cys
		35					40					45			
Lys	His	Gly	Glu	Cys	Ile	Gly	Pro	Asn	Lys	Cys	Lys	Cys	His	Pro	Gly
	50					55					60				
Tyr	Ala	Gly	Lys	Thr	Cys	Asn	Gln	Asp	Leu	Asn	Glu	Cys	Gly	Leu	Lys
65				70					75					80	
Pro	Arg	Pro	Cys	Lys	His	Arg	Cys	Met	Asn	Thr	Tyr	Gly	Ser	Tyr	Lys
			85					90						95	
Cys	Tyr	Cys	Leu	Asn	Gly	Tyr	Met	Leu	Met	Pro	Asp	Gly	Ser	Cys	Ser
		100					105					110			
Ser	Ala	Leu	Thr	Cys	Ser	Met	Ala	Asn	Cys	Gln	Tyr	Gly	Cys	Asp	Val
	115					120					125				
Val	Lys	Gly	Gln	Ile	Arg	Cys	Gln	Cys	Pro	Ser	Pro	Gly	Leu	Gln	Leu
	130					135					140				
Ala	Pro	Asp	Gly	Arg	Thr	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Thr	Gly
145				150					155					160	
Arg	Ala	Ser	Cys	Pro	Lys	Phe	Arg	Gln	Cys	Val	Asn	Thr	Phe	Gly	Ser
			165					170						175	
Tyr	Ile	Cys	Lys	Cys	His	Lys									
			180												

<210> 3699
 <211> 510
 <212> DNA
 <213> Homo sapiens

<400> 3699
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 480
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<210> 3700
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 3700
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 35 40 45
 Arg Asp Pro Asn Leu Pro Val His Ile Arg Gly Trp Leu His Lys Gln
 50 55 60
 Asp Ser Ser Gly Leu Arg Leu Trp Lys Arg Arg Trp Phe Val Leu Ser
 65 70 75 80
 Gly His Cys Leu Phe Tyr Tyr Lys Asp Ser Arg Glu Glu Ser Val Leu
 85 90 95
 Gly Ser Val Leu Leu Pro Ser Tyr Asn Ile Arg Pro Asp Gly Pro Gly
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 Ala Pro Arg Gly Arg Arg Phe Thr Phe Thr Ala Glu His Pro Gly
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<210> 3701
 <211> 733
 <212> DNA
 <213> Homo sapiens

<400> 3701

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 180
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 240
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 300
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 420
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 480
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<210> 3702

<211> 236

<212> PRT

<213> Homo sapiens

<400> 3702

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			20					25					30		
Ser	Asn	Leu	Lys	Glu	His	Lys	Lys	Thr	His	Thr	Ala	Asp	Lys	Val	Phe
	35						40					45			
Thr	Cys	Asp	Glu	Cys	Gly	Lys	Ser	Phe	Asn	Met	Gln	Arg	Lys	Leu	Val
	50					55					60				
Lys	His	Arg	Ile	Arg	His	Thr	Gly	Glu	Arg	Pro	Tyr	Ser	Cys	Ser	Ala
65					70				75					80	
Cys	Gly	Lys	Cys	Phe	Gly	Gly	Ser	Gly	Asp	Leu	Arg	Arg	His	Val	Arg
				85				90					95		
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Glu	Ile	Cys	Asn	Lys	Cys
			100					105					110		
Phe	Thr	Arg	Ser	Ala	Val	Leu	Arg	Arg	His	Lys	Lys	Met	His	Cys	Lys
		115				120						125			
Ala	Gly	Asp	Glu	Ser	Pro	Asp	Val	Leu	Glu	Glu	Leu	Ser	Gln	Ala	Ile
	130					135					140				
Glu	Thr	Ser	Asp	Leu	Glu	Lys	Ser	Gln	Ser	Ser	Asp	Ser	Phe	Ser	Gln
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<210> 3703
<211> 3294
<212> DNA
<213> Homo sapiens
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1320
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1380
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1500
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<210> 3704

<211> 619

<212> PRT

<213> Homo sapiens

<400> 3704

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Ala	Gly	Arg	Asn	Lys	Ser	Gly	Arg	Lys	His	Glu	Leu	Leu	Ala	Lys	Ala
			20					25					30		
Leu	His	Leu	Leu	Lys	Ser	Ser	Cys	Ala	Pro	Ser	Val	Gln	Met	Lys	Ile
	35						40					45			
Lys	Glu	Leu	Tyr	Arg	Arg	Arg	Phe	Pro	Arg	Lys	Thr	Leu	Gly	Pro	Ser
	50					55					60				
Asp	Leu	Ser	Leu	Leu	Ser	Leu	Pro	Pro	Gly	Thr	Ser	Pro	Val	Gly	Ser
65					70					75				80	
Pro	Gly	Pro	Leu	Ala	Pro	Ile	Pro	Pro	Thr	Leu	Leu	Ala	Pro	Gly	Thr
			85					90						95	
Leu	Leu	Gly	Pro	Lys	Arg	Glu	Val	Asp	Met	His	Pro	Pro	Leu	Pro	Gln
		100						105					110		
Pro	Val	His	Pro	Asp	Val	Thr	Met	Lys	Pro	Leu	Pro	Phe	Tyr	Glu	Val
		115					120					125			
Tyr	Gly	Glu	Leu	Ile	Arg	Pro	Thr	Thr	Leu	Ala	Ser	Thr	Ser	Ser	Gln
	130					135					140				
Arg	Phe	Glu	Glu	Ala	His	Phe	Thr	Phe	Ala	Leu	Thr	Pro	Gln	Gln	Val
145				150					155					160	
Gln	Gln	Ile	Leu	Thr	Ser	Arg	Glu	Val	Leu	Pro	Gly	Ala	Lys	Cys	Asp
			165					170						175	
Tyr	Thr	Ile	Gln	Val	Gln	Leu	Arg	Phe	Cys	Leu	Cys	Glu	Thr	Ser	Cys
		180					185					190			
Pro	Gln	Glu	Asp	Tyr	Phe	Pro	Pro	Asn	Leu	Phe	Val	Lys	Val	Asn	Gly
	195						200					205			
Lys	Leu	Cys	Pro	Leu	Pro	Gly	Tyr	Leu	Pro	Pro	Thr	Lys	Asn	Gly	Ala
	210					215					220				
Glu	Pro	Lys	Arg	Pro	Ser	Arg	Pro	Ile	Asn	Ile	Thr	Pro	Leu	Ala	Arg


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          260          265          270
Ala Gly Thr Leu Leu Gln Lys Leu Arg Ala Lys Gly Ile Arg Asn Pro
          275          280          285
Asp His Ser Arg Ala Leu Ile Lys Glu Lys Leu Thr Ala Asp Pro Asp
          290          295          300
Ser Glu Val Ala Thr Thr Ser Leu Arg Val Ser Leu Met Cys Pro Leu
305          310          315          320
Gly Lys Met Arg Leu Thr Val Pro Cys Arg Ala Leu Thr Cys Ala His
          325          330          335
Leu Gln Ser Phe Asp Ala Ala Leu Tyr Leu Gln Met Asn Glu Lys Lys
          340          345          350
Pro Thr Trp Thr Cys Pro Val Cys Asp Lys Lys Ala Pro Tyr Glu Ser
          355          360          365
Leu Ile Ile Asp Gly Leu Phe Met Glu Ile Leu Ser Ser Cys Ser Asp
          370          375          380
Cys Asp Glu Ile Gln Phe Met Glu Asp Gly Ser Trp Cys Pro Met Lys
385          390          395          400
Pro Lys Lys Glu Ala Ser Glu Val Cys Pro Pro Gly Tyr Gly Leu
          405          410          415
Asp Gly Leu Gln Tyr Ser Pro Val Gln Gly Gly Asp Pro Ser Glu Asn
          420          425          430
Lys Lys Lys Val Glu Val Ile Asp Leu Thr Ile Glu Ser Ser Ser Asp
          435          440          445
Glu Glu Asp Leu Pro Pro Thr Lys Lys His Cys Ser Val Thr Ser Ala
          450          455          460
Ala Ile Pro Ala Leu Pro Gly Ser Lys Gly Val Leu Thr Ser Gly His
465          470          475          480
Gln Pro Ser Ser Val Leu Arg Ser Pro Ala Met Gly Thr Leu Gly Gly
          485          490          495
Asp Phe Leu Ser Ser Leu Pro Leu His Glu Tyr Pro Pro Ala Phe Pro
          500          505          510
Leu Gly Ala Asp Ile Gln Gly Leu Asp Leu Phe Ser Phe Leu Gln Thr
          515          520          525
Glu Ser Gln His Tyr Gly Pro Ser Val Ile Thr Ser Leu Asp Glu Gln
          530          535          540
Asp Ala Leu Gly His Phe Phe Gln Tyr Arg Gly Thr Pro Ser His Phe
545          550          555          560
Leu Gly Pro Leu Ala Pro Thr Leu Gly Ser Ser His Cys Ser Ala Thr
          565          570          575
Pro Ala Pro Pro Pro Gly Arg Val Ser Ser Ile Val Ala Pro Gly Gly
          580          585          590
Ala Leu Arg Glu Gly His Gly Gly Pro Leu Pro Ser Gly Pro Ser Leu
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Thr Gly Cys Arg Ser Asp Ile Ile Ser Leu Asp
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<210> 3705

<211> 1737

<212> DNA

<213> Homo sapiens

<400> 3705
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180
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<211> 70

<212> PRT

<213> Homo sapiens

<400> 3710

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<211> 1366

<212> DNA

<213> Homo sapiens

<400> 3711

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<211> 368

<212> PRT

<213> Homo sapiens

<400> 3712

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<211> 1719

<212> DNA

<213> Homo sapiens

<400> 3713

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<213> Homo sapiens

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His Gln Ala Ser Asp Ser Glu Asn Glu Glu Pro Pro Lys Pro Arg Met
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Ser Asp Ser Glu Ser Glu Glu Leu Pro Lys Pro Gln Val Ser Asp Ser
          210          215          220
Glu Ser Glu Glu Pro Pro Arg His Gln Ala Ser Asp Ser Glu Asn Glu
225          230          235          240
Glu Leu Pro Lys Pro Arg Ile Ser Asp Ser Glu Ser Glu Asp Pro Pro
          245          250          255
Arg His Gln Ala Ser Asp Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg
          260          265          270
Ile Ser Asp Ser Glu Ser Glu Asp Pro Pro Arg Asn Gln Ala Ser Asp
          275          280          285
Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg Val Ser Asp Ser Glu Ser
          290          295          300
Glu Gly Pro Gln Lys Gly Pro Ala Ser Asp Ser Glu Thr Glu Asp Ala
305          310          315          320
Ser Arg His Lys Gln Lys Pro Glu Ser Asp Asp Asp Ser Asp Arg Glu
          325          330          335
Asn Lys Gly Glu Asp Thr Glu Met Gln Asn Asp Ser Phe His Ser Asp
          340          345          350
Ser His Met Asp Arg Lys Lys Phe His Ser Ser Asp Ser Glu Glu Glu
          355          360          365
Glu His Lys Lys Gln Lys Met Asp Ser Asp Glu Asp Glu Lys Glu Gly
          370          375          380
Glu Glu Glu Lys Val Ala Lys Arg Lys Ala Ala Val Leu Ser Asp Ser
385          390          395          400
Glu Asp Glu Glu Lys Ala Ser Ala Lys Lys Ser Arg Val Val Ser Asp
          405          410          415
Ala Asp Asp Ser Asp Ser Asp Ala Val Ser Asp Lys Ser Gly Lys Arg
          420          425          430
Glu Lys Thr Ile Ala Ser Asp Ser Glu Glu Glu Ala Gly Lys Glu Leu
          435          440          445
Ser Asp Lys Lys Asn Glu Glu Lys Asp Leu Phe Gly Ser Asp Ser Glu
          450          455          460
Ser Gly Asn Glu Glu Glu Asn Leu Ile Ala Asp Ile Phe Gly Glu Ser
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Gly Asp Glu Glu Glu Glu Glu Phe
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<210> 3715

<211> 288

<212> DNA

<213> Homo sapiens

<400> 3715

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120

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 180
 cagaggaaaa agatgctcaa aaacctccgt aacaccaact atgatgtctt tgagaagata
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<210> 3716
 <211> 96
 <212> PRT
 <213> Homo sapiens

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 Gly Lys Ile Arg Ser Tyr Glu Glu His Leu Glu Lys His Arg Lys Asp
 35 40 45
 Lys Ala His Lys Arg Tyr Leu Leu Met Ser Ile Asp Gln Arg Lys Lys
 50 55 60
 Met Leu Lys Asn Leu Arg Asn Thr Asn Tyr Asp Val Phe Glu Lys Ile
 65 70 75 80
 Cys Trp Gly Leu Gly Ile Glu Tyr Thr Phe Pro Pro Leu Tyr Tyr Arg
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<210> 3717
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 <212> DNA
 <213> Homo sapiens

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 240
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 300
 ggcctgatct gatttttaaa cttcatccct aggattgata ttgctgatga tattattaat
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 420
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 780
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 840
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<210> 3718

<211> 374

<212> PRT

<213> Homo sapiens

<400> 3718

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Gly	Ile	Leu	Leu	Glu	Pro	Cys	Ser	Asp	Arg	Gly	Asp	Ser	Glu	Asp	Gly
			20					25					30		
Cys	Leu	Glu	Arg	Glu	Glu	Tyr	Leu	Leu	Phe	Asp	Ser	Asp	Lys	Leu	Ser
			35				40					45			
His	Leu	Ile	Leu	Asp	Ser	Ser	Ser	Lys	Ile	Cys	Asp	Leu	Asn	Ala	Asn
			50				55				60				
Thr	Glu	Ser	Glu	Val	Pro	Gly	Gly	Gln	Ser	Val	Gly	Val	Gln	Gly	Glu
65					70				75					80	
Ala	Ala	Cys	Val	Ser	Ile	Pro	His	Leu	Asp	Leu	Lys	Asn	Val	Ser	Asp
			85					90					95		
Gly	Asp	Lys	Trp	Glu	Glu	Pro	Phe	Pro	Ala	Phe	Lys	Ser	Trp	Gln	Glu
			100					105					110		
Asp	Ser	Glu	Ser	Gly	Glu	Ala	Gln	Leu	Ser	Pro	Gln	Ala	Gly	Arg	Met
			115				120					125			
Asn	His	His	Pro	Leu	Glu	Glu	Asp	Cys	Pro	Pro	Val	Leu	Ser	His	Arg

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 Ser Leu Asp Phe Gly Gln Ser Gln Arg Phe Leu His Asp Pro Glu Lys
 145 150 155 160
 Leu Asp Ser Ser Ser Lys Ala Leu Ser Phe Thr Arg Ile Arg Arg Ser
 165 170 175
 Ser Phe Ser Ser Lys Asp Glu Lys Arg Glu Asp Arg Thr Pro Tyr Gln
 180 185 190
 Leu Val Lys Lys Leu Gln Lys Lys Ile Arg Gln Phe Glu Glu Gln Phe
 195 200 205
 Glu Arg Glu Arg Asn Ser Lys Pro Ser Tyr Ser Asp Ile Ala Ala Asn
 210 215 220
 Pro Lys Val Leu Lys Trp Met Thr Glu Leu Thr Lys Leu Arg Lys Gln
 225 230 235 240
 Ile Lys Asp Ala Lys His Lys Asn Ser Asp Gly Glu Phe Val Pro Gln
 245 250 255
 Thr Arg Pro Arg Ser Asn Thr Leu Pro Lys Ser Phe Gly Ser Ser Leu
 260 265 270
 Asp His Glu Asp Glu Glu Asn Glu Asp Glu Pro Lys Val Ile Gln Lys
 275 280 285
 Glu Lys Lys Pro Ser Lys Glu Ala Thr Leu Glu Leu Ile Leu Lys Arg
 290 295 300
 Leu Lys Glu Lys Arg Ile Glu Arg Cys Leu Pro Glu Asp Ile Lys Lys
 305 310 315 320
 Met Thr Lys Asp His Leu Val Glu Glu Lys Ala Ser Leu Gln Lys Ser
 325 330 335
 Leu Leu Tyr Tyr Glu Ser Gln His Gly Arg Pro Val Thr Lys Glu Glu
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 Arg His Ile Val Lys Pro Leu Tyr Asp Arg Tyr Arg Leu Val Lys Gln
 355 360 365
 Met Leu Thr Arg Ala Ser
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<210> 3719

<211> 422

<212> DNA

<213> Homo sapiens

<400> 3719

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<210> 3720
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<400> 3720
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 35 40 45
 Val Cys Phe Asp Asp Phe Phe Pro Ile Ser Gln Val Arg Leu Trp Ala
 50 55 60
 Leu Gln Leu Ile Met Val Ser Thr Pro Ser Leu Leu Val Val Leu His
 65 70 75 80
 Val Ala Tyr His Glu Gly Arg Glu Lys Arg His Arg Lys Lys Leu Tyr
 85 90 95
 Val Ser Pro Gly Thr Met Asp Gly Gly Leu Trp Tyr Ala Tyr Leu Ile
 100 105 110
 Ser Leu Ile Val Lys Thr Gly Phe Glu Thr
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<210> 3721
 <211> 4728
 <212> DNA
 <213> Homo sapiens

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<210> 3722

<211> 1216

<212> PRT

<213> Homo sapiens

<400> 3722

Ser	Glu	Lys	Glu	Lys	Glu	Glu	Leu	Glu	Arg	Leu	Gln	Lys	Glu	Glu	Glu
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Glu	Arg	Lys	Lys	Arg	Leu	Gln	Leu	Tyr	Val	Phe	Val	Met	Arg	Cys	Ile
			20					25					30		
Ala	Tyr	Pro	Phe	Asn	Ala	Lys	Gln	Pro	Thr	Asp	Met	Ala	Arg	Arg	Gln
			35				40					45			
Gln	Lys	Ile	Ser	Lys	Gln	Gln	Leu	Gln	Thr	Val	Lys	Asp	Arg	Phe	Gln
	50				55					60					
Ala	Phe	Leu	Asn	Gly	Glu	Thr	Gln	Ile	Met	Ala	Asp	Glu	Ala	Phe	Met
65					70					75				80	
Asn	Ala	Val	Gln	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val
			85						90					95	
Ala	Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Ser	Arg	Glu
			100					105					110		
Val	Phe	Lys	Lys	His	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile
			115				120					125			
Asp	Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Met	Ala	Lys	Phe
	130					135					140				
Asp	Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Pro	Arg	Lys	Gln	Gln	Ala	Arg
145					150					155				160	
Met	Thr	Ala	Ser	Ala	Ala	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu

Tyr Glu Met Phe Gln Asn Ile Leu Gly Ile Lys Lys Phe Glu His Gln
 165 170 175
 180 185 190
 Leu Leu Tyr Asn Ala Cys Gln Leu Asp Asn Pro Asp Glu Gln Ala Ala
 195 200 205
 Gln Ile Arg Arg Glu Leu Asp Gly Arg Leu Gln Met Ala Asp Gln Ile
 210 215 220
 Ala Arg Glu Arg Lys Phe Pro Lys Phe Val Ser Lys Glu Met Glu Asn
 225 230 235 240
 Met Tyr Ile Glu Glu Leu Lys Ser Ser Val Asn Leu Leu Met Ala Asn
 245 250 255
 Leu Glu Ser Met Pro Val Ser Lys Gly Gly Glu Phe Lys Leu Gln Lys
 260 265 270
 Leu Lys Arg Ser His Asn Ala Ser Ile Ile Asp Met Gly Glu Glu Ser
 275 280 285
 Glu Asn Gln Leu Ser Lys Ser Asp Val Val Leu Ser Phe Ser Leu Glu
 290 295 300
 Val Val Ile Met Glu Val Gln Gly Leu Lys Ser Leu Ala Pro Asn Arg
 305 310 315 320
 Ile Val Tyr Cys Thr Met Glu Val Glu Gly Gly Glu Lys Leu Gln Thr
 325 330 335
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 340 345 350
 Ser Thr Thr His Ala Leu Pro Ala Val Lys Val Lys Leu Phe Thr Glu
 355 360 365
 Ser Thr Gly Val Leu Ala Leu Glu Asp Lys Glu Leu Gly Arg Val Ile
 370 375 380
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 385 390 395 400
 Thr Val Ser Lys Asn Cys Pro Asn Gln Asp Leu Lys Ile Lys Leu Ala
 405 410 415
 Val Arg Met Asp Lys Pro Gln Asn Met Lys His Ser Gly Tyr Leu Trp
 420 425 430
 Ala Ile Gly Lys Asn Val Trp Lys Arg Trp Lys Lys Arg Phe Phe Val
 435 440 445
 Leu Val Gln Val Ser Gln Tyr Thr Phe Ala Met Cys Ser Tyr Arg Glu
 450 455 460
 Lys Lys Ala Glu Pro Gln Glu Leu Leu Gln Leu Asp Gly Tyr Thr Val
 465 470 475 480
 Asp Tyr Thr Asp Pro Gln Pro Gly Leu Glu Gly Gly Arg Ala Phe Phe
 485 490 495
 Asn Ala Val Lys Glu Gly Asp Thr Val Ile Phe Ala Ser Asp Asp Glu
 500 505 510
 Gln Asp Arg Ile Leu Trp Val Gln Ala Met Tyr Arg Ala Thr Gly Gln
 515 520 525
 Ser His Lys Pro Val Pro Pro Thr Gln Val Gln Lys Leu Asn Ala Lys
 530 535 540
 Gly Gly Asn Val Pro Gln Leu Asp Ala Pro Ile Ser Gln Phe Ser Gly
 545 550 555 560
 Leu Lys Asp Ala Asp Arg Ala Gln Lys His Gly Met Asp Glu Phe Ile
 565 570 575
 Ser Ser Asn Pro Cys Asn Phe Asp His Ala Ser Leu Phe Glu Met Val
 580 585 590
 Gln Arg Leu Thr Leu Asp His Arg Leu Asn Asp Ser Tyr Ser Cys Leu

595 600 605
 Gly Trp Phe Ser Pro Gly Gln Val Phe Val Leu Asp Glu Tyr Cys Ala
 610 615 620
 Arg Asn Gly Val Arg Gly Cys His Arg His Leu Cys Tyr Leu Arg Asp
 625 630 635 640
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 645 650 655
 His Tyr Ser Phe Ala Phe Cys Ala Ser His Val His Gly Asn Arg Pro
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 Asp Gly Ile Gly Thr Val Thr Val Glu Glu Lys Glu Arg Phe Glu Glu
 675 680 685
 Ile Lys Glu Arg Leu Arg Val Leu Leu Glu Asn Gln Ile Thr His Phe
 690 695 700
 Arg Tyr Cys Phe Pro Phe Gly Arg Pro Glu Gly Ala Leu Lys Ala Thr
 705 710 715 720
 Leu Ser Leu Leu Glu Arg Val Leu Met Lys Asp Ile Val Thr Pro Val
 725 730 735
 Pro Gln Glu Glu Val Lys Thr Val Ile Arg Lys Cys Leu Glu Gln Ala
 740 745 750
 Ala Leu Val Asn Tyr Ser Arg Leu Ser Glu Tyr Ala Lys Ile Glu Glu
 755 760 765
 Asn Gln Lys Asp Ala Glu Asn Val Gly Arg Leu Ile Thr Pro Ala Lys
 770 775 780
 Lys Leu Glu Asp Thr Ile Arg Leu Ala Glu Leu Val Ile Glu Val Leu
 785 790 795 800
 Gln Gln Asn Glu Glu His His Ala Glu Pro His Val Asp Lys Gly Glu
 805 810 815
 Ala Phe Ala Trp Trp Ser Asp Leu Met Val Glu His Ala Glu Thr Phe
 820 825 830
 Leu Ser Leu Phe Ala Val Asp Met Asp Ala Ala Leu Glu Val Gln Pro
 835 840 845
 Pro Asp Thr Trp Asp Ser Phe Pro Leu Phe Gln Leu Leu Asn Asp Phe
 850 855 860
 Leu Arg Thr Asp Tyr Asn Leu Cys Asn Gly Lys Phe His Lys His Leu
 865 870 875 880
 Gln Asp Leu Phe Ala Pro Leu Val Val Arg Tyr Val Asp Leu Met Glu
 885 890 895
 Ser Ser Ile Ala Gln Ser Ile His Arg Gly Phe Glu Arg Glu Ser Trp
 900 905 910
 Glu Pro Val Asn Asn Gly Ser Gly Thr Ser Glu Asp Leu Phe Trp Lys
 915 920 925
 Leu Asp Ala Leu Gln Thr Phe Ile Arg Asp Leu His Trp Pro Glu Glu
 930 935 940
 Glu Phe Gly Lys His Leu Glu Gln Arg Leu Lys Leu Met Ala Ser Asp
 945 950 955 960
 Met Ile Glu Ser Cys Val Lys Arg Thr Arg Ile Ala Phe Glu Val Lys
 965 970 975
 Leu Gln Lys Thr Ser Arg Ser Thr Asp Phe Arg Val Pro Gln Ser Ile
 980 985 990
 Cys Thr Met Phe Asn Val Met Val Asp Ala Lys Ala Gln Ser Thr Lys
 995 1000 1005
 Leu Cys Ser Met Glu Met Gly Gln Glu Phe Ala Lys Met Trp His Gln
 1010 1015 1020
 Tyr His Ser Lys Ile Asp Glu Leu Ile Glu Glu Thr Val Lys Glu Met

1025 1030 1035 1040
 Ile Thr Leu Leu Val Ala Lys Phe Val Thr Ile Leu Glu Gly Val Leu
 1045 1050 1055
 Ala Lys Leu Ser Arg Tyr Asp Glu Gly Thr Leu Phe Ser Ser Phe Leu
 1060 1065 1070
 Ser Phe Thr Val Lys Ala Ala Ser Lys Tyr Val Asp Val Pro Lys Pro
 1075 1080 1085
 Gly Met Asp Val Ala Asp Ala Tyr Val Thr Phe Val Arg His Ser Gln
 1090 1095 1100
 Asp Val Leu Arg Asp Lys Val Asn Glu Glu Met Tyr Ile Glu Arg Leu
 1105 1110 1115 1120
 Phe Asp Gln Trp Tyr Asn Ser Ser Met Asn Val Ile Cys Thr Trp Leu
 1125 1130 1135
 Thr Asp Arg Met Asp Leu Gln Leu His Ile Tyr Gln Leu Lys Thr Leu
 1140 1145 1150
 Ile Arg Met Val Lys Lys Thr Tyr Arg Asp Phe Arg Leu Gln Gly Val
 1155 1160 1165
 Leu Asp Ser Thr Leu Asn Ser Lys Thr Tyr Glu Thr Ile Arg Asn Arg
 1170 1175 1180
 Leu Thr Val Glu Glu Ala Thr Ala Ser Val Ser Glu Gly Gly Gly Leu
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 Gln Gly Ile Ser Met Lys Asp Ser Asp Glu Glu Asp Glu Glu Asp Asp
 1205 1210 1215

<210> 3723

<211> 830

<212> DNA

<213> Homo sapiens

<400> 3723

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 120
 aaccccaacg agaagctgaa ggtgaacttt gggaccccag agttcctgtc acctgaggtg
 180
 gtgaattatg accaaatctc cgataagaca gacatgtgga gtatgggggt gatcacctac
 240
 atgctgctga gcggcctctc ccccttctctg ggagatgatg acacagagac cctaaacaac
 300
 gttctatctg gcaactggta ctttgatgaa gagacctttg aggccgtatc agacgaggcc
 360
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 480
 cttaagtccc agatcttgct taagaaatac ctcatgaaga ggcgctggaa gaaaaacttc
 540
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 600
 ctgggggtct gagccctggg cgcagctgaa gcctggacgc agccacacag tggccggggc
 660
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 720

ggacaaggct gtgccaggct gggaggctcg gggctcccca cgcccccatg cagtgaccgc
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<210> 3724
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 3724
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 Glu Asn Ile Leu Cys Val Asn Thr Thr Gly His Leu Val Lys Ile Ile
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 Asp Phe Gly Leu Ala Arg Arg Tyr Asn Pro Asn Glu Lys Leu Lys Val
 35 40 45
 Asn Phe Gly Thr Pro Glu Phe Leu Ser Pro Glu Val Val Asn Tyr Asp
 50 55 60
 Gln Ile Ser Asp Lys Thr Asp Met Trp Ser Met Gly Val Ile Thr Tyr
 65 70 75 80
 Met Leu Leu Ser Gly Leu Ser Pro Phe Leu Gly Asp Asp Asp Thr Glu
 85 90 95
 Thr Leu Asn Asn Val Leu Ser Gly Asn Trp Tyr Phe Asp Glu Glu Thr
 100 105 110
 Phe Glu Ala Val Ser Asp Glu Ala Lys Asp Phe Val Ser Asn Leu Ile
 115 120 125
 Val Lys Asp Gln Arg Ala Arg Met Asn Ala Ala Gln Cys Leu Ala His
 130 135 140
 Pro Trp Leu Asn Asn Leu Ala Glu Lys Ala Lys Arg Cys Asn Arg Arg
 145 150 155 160
 Leu Lys Ser Gln Ile Leu Leu Lys Lys Tyr Leu Met Lys Arg Arg Trp
 165 170 175
 Lys Lys Asn Phe Ile Ala Val Ser Ala Ala Asn Arg Phe Lys Lys Ile
 180 185 190
 Ser Ser Ser Gly Ala Leu Met Ala Leu Gly Val
 195 200

<210> 3725
 <211> 1244
 <212> DNA
 <213> Homo sapiens

<400> 3725
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 120
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 180
 gataaactgc taaccgaatc cctgaagaac aatatccctg caagcggact gcacctcttt
 240
 ggaatcaacc agctggaaga agaagatatg atgacaaatc agagggatga agagctgccc
 300

accctgttgc attttgcgc gaagtatgga ctgaagaacc tcactgcctt gttgctcacc
 360
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 420
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 480
 gtggacatgc tcaagagtca cattaaagag gaactgatgc acggggagga ggctgatgct
 540
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 600
 ggctgtgacg aggatctcta tgagtccatg gctgcctttg tcccagctgc cactgaagac
 660
 ctctatgttg aaatgcttca ggccagtaca tctaacccaa tccctggaga tggtttctct
 720
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 780
 aatctggaga gagatcagtg ccatcttggt caggaagaag atgtttatca cacggtggat
 840
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 900
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 960
 aagtatggca gggaatgatg tccaactggt tctttggagc ttctcaacag ggatttcctg
 1020
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 1080
 agccctacga gacaggggtc atatcctggg gccagattct ggagctagaa taggagtaat
 1140
 gaccagagtc agtgcctggc ttcctggaag tatttacgca cagttgcaaa ggcaggtaaa
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<210> 3726

<211> 325

<212> PRT

<213> Homo sapiens

<400> 3726

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Gly	His	Val	Ile	Ser	Ala	His	Gly	Leu	Ser	Val	Leu	Asn	Leu	Arg	Asp
		20						25					30		
Gly	Arg	Glu	Leu	Asp	Phe	Arg	Ser	Asp	His	Leu	His	Phe	Cys	Phe	Gln
		35					40					45			
Ala	Phe	Lys	Ile	Val	Pro	Tyr	Asn	Thr	Glu	Thr	Leu	Asp	Lys	Leu	Leu
	50					55					60				
Thr	Glu	Ser	Leu	Lys	Asn	Asn	Ile	Pro	Ala	Ser	Gly	Leu	His	Leu	Phe
65				70					75					80	
Gly	Ile	Asn	Gln	Leu	Glu	Glu	Glu	Asp	Met	Met	Thr	Asn	Gln	Arg	Asp
			85					90					95		
Glu	Glu	Leu	Pro	Thr	Leu	Leu	His	Phe	Ala	Ala	Lys	Tyr	Gly	Leu	Lys
			100					105					110		
Asn	Leu	Thr	Ala	Leu	Leu	Leu	Thr	Cys	Pro	Gly	Ala	Leu	Gln	Ala	Tyr

115 120 125
 Ser Val Ala Asn Lys His Gly His Tyr Pro Asn Thr Ile Ala Glu Lys
 130 135 140
 His Gly Phe Arg Asp Leu Arg Gln Phe Ile Asp Glu Tyr Val Glu Thr
 145 150 155 160
 Val Asp Met Leu Lys Ser His Ile Lys Glu Glu Leu Met His Gly Glu
 165 170 175
 Glu Ala Asp Ala Val Tyr Glu Ser Met Ala His Leu Ser Thr Asp Leu
 180 185 190
 Leu Met Lys Cys Ser Leu Asn Pro Gly Cys Asp Glu Asp Leu Tyr Glu
 195 200 205
 Ser Met Ala Ala Phe Val Pro Ala Ala Thr Glu Asp Leu Tyr Val Glu
 210 215 220
 Met Leu Gln Ala Ser Thr Ser Asn Pro Ile Pro Gly Asp Gly Phe Ser
 225 230 235 240
 Arg Ala Thr Lys Asp Ser Met Ile Arg Lys Phe Leu Glu Gly Asn Ser
 245 250 255
 Met Gly Met Thr Asn Leu Glu Arg Asp Gln Cys His Leu Gly Gln Glu
 260 265 270
 Glu Asp Val Tyr His Thr Val Asp Asp Asp Glu Ala Phe Ser Val Asp
 275 280 285
 Leu Ala Ser Arg Pro Pro Val Pro Val Pro Arg Pro Glu Thr Thr Ala
 290 295 300
 Pro Gly Ala His Gln Leu Pro Asp Asn Glu Pro Tyr Ile Phe Lys Gly
 305 310 315 320
 Lys Tyr Gly Arg Glu
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<210> 3727

<211> 630

<212> DNA

<213> Homo sapiens

<400> 3727

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 120
 ctcgaccccg ctgagaaaca agaaacaggc tgtcctcctt tgggtctgga gtcctgcga
 180
 gtttcagata gccggcttga ggcattccagc agccagtcct ttggtcttgg accacaccga
 240
 ggacggctca acattcagtc aggcctggag gacggcgatc tatatgatgg agcctgggtg
 300
 gctgaggagc aggacgccga tccatggttt caggtggacg ctgggcaccc caccgcttc
 360
 tcgggtgtta tcacacaggg caggaactct gtctggaggt atgactgggt cacatcatac
 420
 aaggtccagt tcagcaatga cagtcggacc tgggtgggaa gtaggaacca cagcagtggt
 480
 atggacgcag tatttcctgc caattcagac ccagaaactc cagtgtgaa cctcctgccg
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ccttgccctcc gggcagagat cctggcctgc
630

<210> 3728

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3728

Arg Ile Arg Val Ile Lys Lys Lys Lys Val Ile Met Lys Lys Arg Lys
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20 25 30
Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu
35 40 45
Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser
50 55 60
Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg
65 70 75 80
Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp
85 90 95
Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val
100 105 110
Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg
115 120 125
Asn Ser Val Trp Arg Tyr Asp Trp Val Thr Ser Tyr Lys Val Gln Phe
130 135 140
Ser Asn Asp Ser Arg Thr Trp Trp Gly Ser Arg Asn His Ser Ser Gly
145 150 155 160
Met Asp Ala Val Phe Pro Ala Asn Ser Asp Pro Glu Thr Pro Val Leu
165 170 175
Asn Leu Leu Pro Glu Pro Gln Val Ala Arg Phe Ile Arg Leu Leu Pro
180 185 190
Gln Thr Trp Leu Gln Gly Gly Ala Pro Cys Leu Arg Ala Glu Ile Leu
195 200 205
Ala Cys
210

<210> 3729

<211> 1552

<212> DNA

<213> Homo sapiens

<400> 3729

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120
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180
tggttagagt cctcagaagc atgtgtcttc cccagctctg cagccacata ctatccgttt
240
gttcaggaac caccagtgc agagcagaaa atatatactg aagacatggc ctttggagct
300

tcaacttttc cacctcagta tttatcttct gagataactc ttcattccata tgcctattct
 360
 ccttataccc ttgactccac acagaatgtt tactcagtgc ctggctccca gtatctttat
 420
 aaccaaccca gttgttaccg aggttttcaa acagtgaagc atcgaaatga gaacacatgc
 480
 cctctccac aagaaatgaa agctctgttt aagaagaaaa cctatgatga gaaaaaacg
 540
 tatgatcagc aaaagtttga cagtgaagg gctgatggaa ctatatcatc tgagataaaa
 600
 tcagctagag gttcacatca tttgtccatt tacgctgaga atagtttgaa atcagatggg
 660
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 720
 cctgagtttg aatttaccac actggacttt cctgaactgc aagggtgcaga gaacaatatg
 780
 tcagagatac agaagcaacc caagtgggga cctgtccact ctgtctctac cgacatttct
 840
 cttctaagag aagtagtaaa accagctgca gtgttatcaa agggtgaaat agtggtgaaa
 900
 aataacccaa atgaatctgt aactgctaata gccgctacca attctccttc atgtacaaga
 960
 gagttatctt ggacaccaat gggttatgtt gttcgacaga cattatctac agaactgtca
 1020
 gcagccccta aaaatgttac ttctatgata aacttaaaga ccattgcttc atcagcagat
 1080
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 1140
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 1200
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 1260
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 1320
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 1380
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 1440
 ggcatgctga cagccctgga gaagaagcag cactctcagc atgcaaagca gtcctccaaa
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<210> 3730

<211> 422

<212> PRT

<213> Homo sapiens

<400> 3730

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Ile	Thr	Leu	His	Pro	Tyr	Ala	Tyr	Ser	Pro	Tyr	Thr	Leu	Asp	Ser	Thr
			20					25					30		
Gln	Asn	Val	Tyr	Ser	Val	Pro	Gly	Ser	Gln	Tyr	Leu	Tyr	Asn	Gln	Pro

	35						40						45					
Ser	Cys	Tyr	Arg	Gly	Phe	Gln	Thr	Val	Lys	His	Arg	Asn	Glu	Asn	Thr			
	50					55					60							
Cys	Pro	Leu	Pro	Gln	Glu	Met	Lys	Ala	Leu	Phe	Lys	Lys	Lys	Thr	Tyr			
65					70					75					80			
Asp	Glu	Lys	Lys	Thr	Tyr	Asp	Gln	Gln	Lys	Phe	Asp	Ser	Glu	Arg	Ala			
				85					90					95				
Asp	Gly	Thr	Ile	Ser	Ser	Glu	Ile	Lys	Ser	Ala	Arg	Gly	Ser	His	His			
			100					105					110					
Leu	Ser	Ile	Tyr	Ala	Glu	Asn	Ser	Leu	Lys	Ser	Asp	Gly	Tyr	His	Lys			
	115						120					125						
Arg	Thr	Asp	Arg	Lys	Ser	Arg	Ile	Ile	Ala	Lys	Asn	Val	Ser	Thr	Ser			
	130					135					140							
Lys	Pro	Glu	Phe	Glu	Phe	Thr	Thr	Leu	Asp	Phe	Pro	Glu	Leu	Gln	Gly			
145					150					155					160			
Ala	Glu	Asn	Asn	Met	Ser	Glu	Ile	Gln	Lys	Gln	Pro	Lys	Trp	Gly	Pro			
				165					170					175				
Val	His	Ser	Val	Ser	Thr	Asp	Ile	Ser	Leu	Leu	Arg	Glu	Val	Val	Lys			
			180					185					190					
Pro	Ala	Ala	Val	Leu	Ser	Lys	Gly	Glu	Ile	Val	Val	Lys	Asn	Asn	Pro			
	195					200						205						
Asn	Glu	Ser	Val	Thr	Ala	Asn	Ala	Ala	Thr	Asn	Ser	Pro	Ser	Cys	Thr			
	210					215					220							
Arg	Glu	Leu	Ser	Trp	Thr	Pro	Met	Gly	Tyr	Val	Val	Arg	Gln	Thr	Leu			
225					230					235					240			
Ser	Thr	Glu	Leu	Ser	Ala	Ala	Pro	Lys	Asn	Val	Thr	Ser	Met	Ile	Asn			
				245					250					255				
Leu	Lys	Thr	Ile	Ala	Ser	Ser	Ala	Asp	Pro	Lys	Asn	Val	Ser	Ile	Pro			
			260					265					270					
Ser	Ser	Glu	Ala	Leu	Ser	Ser	Asp	Pro	Ser	Tyr	Asn	Lys	Glu	Lys	His			
		275					280					285						
Ile	Ile	His	Pro	Thr	Gln	Lys	Ser	Lys	Ala	Ser	Gln	Gly	Ser	Asp	Leu			
	290					295					300							
Glu	Gln	Asn	Glu	Ala	Ser	Arg	Lys	Asn	Lys	Lys	Lys	Lys	Glu	Lys	Ser			
305					310					315					320			
Thr	Ser	Lys	Tyr	Glu	Val	Leu	Thr	Val	Gln	Glu	Pro	Pro	Arg	Ile	Glu			
				325					330					335				
Asp	Ala	Glu	Glu	Phe	Pro	Asn	Leu	Ala	Val	Ala	Ser	Glu	Arg	Arg	Asp			
			340					345					350					
Arg	Ile	Glu	Thr	Pro	Lys	Phe	Gln	Ser	Lys	Gln	Gln	Pro	Gln	Asp	Asn			
		355					360					365						
Phe	Lys	Asn	Asn	Val	Lys	Lys	Ser	Gln	Leu	Pro	Val	Gln	Leu	Asp	Leu			
	370					375					380							
Gly	Gly	Met	Leu	Thr	Ala	Leu	Glu	Lys	Lys	Gln	His	Ser	Gln	His	Ala			
385					390													

<210> 3731

<211> 1704

<212> DNA

<213> Homo sapiens

<400> 3731
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120
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180
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240
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360
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420
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480
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900
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960
cctctggctg ctaggagaga agtgctgaat gttccgtgtg gagatgctca ggaaagtatt
1020
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1080
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1140
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1200
aagaagccca gtgatgagac ggtgagatgg tttgagtcct cgggtgcctgg gtagcaggaa
1260
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1320
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1440
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1560

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 1704

<210> 3732
 <211> 281
 <212> PRT
 <213> Homo sapiens

<400> 3732
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 Glu Gly Ile Thr Asp Ala Ser Ser Cys Ala Val Leu Leu Pro Ala Ser
 35 40 45
 Leu Phe Val Asn Ser His Pro Gly Ile Asp Arg Pro Gly Met Leu Cys
 50 55 60
 Ser Phe Arg Ile Pro Gly Ala Trp Ser Cys Ala Trp Ser Leu Asn Ile
 65 70 75 80
 Gln Ala Asn Asn Cys Phe Ser Thr Gly Leu Ser Arg Arg Val Leu Leu
 85 90 95
 Thr Asn Val Val Thr Gly His Arg Gln Ser Phe Gly Thr Asn Ser Asp
 100 105 110
 Val Leu Ala Gln Gln Phe Ala Leu Met Ala Pro Leu Leu Phe Asn Gly
 115 120 125
 Cys Arg Ser Gly Glu Ile Phe Ala Ile Asp Leu Arg Cys Gly Asn Gln
 130 135 140
 Gly Lys Gly Trp Lys Ala Thr Arg Leu Phe His Asp Ser Ala Val Thr
 145 150 155 160
 Ser Val Arg Ile Leu Gln Asp Glu Gln Tyr Leu Met Ala Ser Asp Met
 165 170 175
 Ala Gly Lys Ile Lys Leu Trp Asp Leu Arg Thr Thr Lys Cys Val Arg
 180 185 190
 Gln Tyr Glu Gly His Val Asn Glu Tyr Ala Tyr Leu Pro Leu His Val
 195 200 205
 His Glu Glu Glu Gly Ile Leu Val Ala Val Gly Gln Asp Cys Tyr Thr
 210 215 220
 Arg Ile Trp Ser Leu His Asp Ala Arg Leu Leu Arg Thr Ile Pro Ser
 225 230 235 240
 Pro Tyr Pro Ala Ser Lys Ala Asp Ile Pro Ser Val Ala Phe Ser Ser
 245 250 255
 Arg Leu Gly Gly Ser Arg Gly Ala Pro Gly Leu Leu Met Ala Val Gly
 260 265 270
 Gln Asp Leu Tyr Cys Tyr Ser Tyr Ser
 275 280

<210> 3733
 <211> 515
 <212> DNA
 <213> Homo sapiens

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 300
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 360
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<210> 3734
 <211> 171
 <212> PRT
 <213> Homo sapiens

<400> 3734
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 20 25 30
 Gly Lys Asp Pro Gly Ser Ala Pro Ser Ser Val Arg Glu Arg Glu Thr
 35 40 45
 Pro Gly Ala Xaa Pro Cys Leu Pro Arg Arg Gly Trp Cys Val Pro Gly
 50 55 60
 Asp Val Arg Ser Ser Pro Pro Leu Pro Gly Trp Cys Ala Leu Ser Asp
 65 70 75 80
 Val Arg Ser Arg Gly Arg Ser Cys Pro Ser Ala Pro Lys Ala Ala Gly
 85 90 95
 Gly Leu Arg Ala Trp Gly Arg Gly Ser Gly Ala Ala Arg Ala Pro Ala
 100 105 110
 Pro Ala Pro Ser Pro Ser Ser Gly Xaa Ser Pro Ser Ser Arg Thr Pro
 115 120 125
 Arg Asp Trp Ser Ala Ser Arg Cys Trp Thr Trp Ser Gly Ala Ala Thr
 130 135 140
 Ala Pro Thr Pro Phe Ser Pro Ala Gln Gln Pro Pro Ser Ser His Asp
 145 150 155 160
 Gly Leu Ser Leu Asp Pro Ser Gln Leu Glu Pro
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<210> 3735
 <211> 2512
 <212> DNA
 <213> Homo sapiens

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240
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360
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1320
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1440
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1560

ccatgcacct ccgaagggcc tacatgagta tcatgacaca gatgaaggag tcagagcaag
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 2400
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<210> 3736

<211> 155

<212> PRT

<213> Homo sapiens

<400> 3736

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Ser	Gly	Arg	Pro	Ser	Ala	Thr	Gln	Lys	Lys	Met	Lys	Lys	Arg	Val	
			20					25					30		
Lys	Asp	Glu	Leu	Arg	Lys	Leu	Asn	Thr	Met	Pro	Ala	Ala	Glu	Ala	Asn
		35					40					45			
Glu	Ile	Glu	Asp	Val	Trp	His	Leu	Asp	Leu	Ser	Ser	Arg	Trp	Gln	Leu
		50				55					60				
Tyr	Arg	Leu	Trp	Leu	Gln	Leu	Tyr	Gln	Ala	Asp	Thr	Pro	Pro	Gly	Lys
		65			70				75					80	
Ile	Leu	Ser	Tyr	Glu	Arg	Gln	Tyr	Arg	Thr	Ser	Ala	Glu	Arg	Met	Ala
			85					90						95	
Glu	Leu	Arg	Leu	Gln	Glu	Asp	Leu	His	Ile	Leu	Lys	Asp	Ala	Gln	Val
			100					105					110		
Val	Gly	Met	Thr	Thr	Thr	Gly	Ala	Ala	Lys	Tyr	Arg	Gln	Ile	Leu	Gln

	115		120		125										
Lys	Val	Glu	Pro	Arg	Ile	Val	Ile	Val	Glu	Glu	Ala	Ala	Glu	Val	Leu
	130				135						140				
Glu	Ala	His	Thr	Ile	Ala	Thr	Leu	Ser	Lys	Ala					
145					150					155					

<210> 3737

<211> 1046

<212> DNA

<213> Homo sapiens

<400> 3737

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120
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180
gccagcttcc gtgcctgccc caacctcacc atcctgtggc tgcactcgaa tgtgctggcc
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300
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360
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420
gccctgcagt acctctacct gcaggacaac gcgctgcagg cactgcctga tgacaccttc
480
cgcgacctgg gcaacctcac acacctcttc ctgcacggca accgcatctc cagcgtgccc
540
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600
gcccattgtg acccgcatgc cttccgtgac cttggccgcc tcatgacact ctatctgttt
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gccaacaatc tatcagcgct gccactgag gccctggccc cctgcgtgc cctgcagtac
720
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780
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900
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1046

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<210> 3738

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3738

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 20 25 30
 Gly Leu Gln Ala Val Pro Val Gly Ile Pro Ala Ala Ser Gln Arg Ile
 35 40 45
 Phe Leu His Gly Asn Arg Ile Ser His Val Pro Ala Ala Ser Phe Arg
 50 55 60
 Ala Cys Arg Asn Leu Thr Ile Leu Trp Leu His Ser Asn Val Leu Ala
 65 70 75 80
 Arg Ile Asp Ala Ala Phe Thr Gly Leu Ala Leu Leu Gly Ala Leu
 85 90 95
 Asp Leu Ser Asp Asn Ala Gln Leu Arg Ser Val Asp Pro Ala Thr Phe
 100 105 110
 His Gly Leu Gly Arg Leu His Thr Leu His Leu Asp Arg Cys Gly Leu
 115 120 125
 Gln Glu Leu Gly Pro Gly Leu Phe Arg Gly Leu Ala Ala Leu Gln Tyr
 130 135 140
 Leu Tyr Leu Gln Asp Asn Ala Leu Gln Ala Leu Pro Asp Asp Thr Phe
 145 150 155 160
 Arg Asp Leu Gly Asn Leu Thr His Leu Phe Leu His Gly Asn Arg Ile
 165 170 175
 Ser Ser Val Pro Glu Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg
 180 185 190
 Leu Leu Leu His Gln Asn Arg Val Ala His Val His Pro His Ala Phe
 195 200 205
 Arg Asp Leu Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu
 210 215 220
 Ser Ala Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr
 225 230 235 240
 Leu Arg Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg Ala Arg Pro
 245 250 255
 Leu Trp Ala Trp Leu Gln Lys Phe Arg Gly Ser Ser Ser Glu Val Pro
 260 265 270
 Cys Ser Leu Pro Gln Arg Leu Ala Gly Arg Asp Leu Lys Arg Leu Ala
 275 280 285
 Ala Asn Asp Leu Gln Gly Cys Ala Val Ala Thr Gly Pro Tyr His Pro
 290 295 300
 Ile Trp Thr Gly Arg Ala Thr Asp Glu Glu Pro Leu Gly Leu Pro Lys
 305 310 315 320
 Cys Cys Gln Pro Asp Ala Ala Asp Lys Ala Ser Val Leu Glu Pro Gly
 325 330 335
 Arg Pro Ala Ser Ala Gly Asn Ala Leu Lys Gly Arg
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<210> 3739

<211> 1252

<212> DNA

<213> Homo sapiens

<400> 3739

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240
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300
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360
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420
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480
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720
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1020
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1080
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1140
agccccgcgc tcgctcagaa gtcggggcag cctcgcgacc ctcacctacc cctcccaata
1200
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1252

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<210> 3740

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3740

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Met Gly Lys Phe Leu His Gln Gly Leu Gly Glu Ser Thr Gly Ser Pro
  1             5             10             15
Gly Gln Trp Glu Ser Ala Ala Pro Pro Val Trp Arg Pro Arg Ala His
      20             25             30
Ser Thr Glu Ala Pro Gly His Pro Gln Glu Asp Gly Lys Gly Gln Leu
      35             40             45
Ala Gly Glu Ser Pro Gly His Arg Glu Pro Ser Pro Gly Ser Lys Gln

```

```

      50              55              60
Asp Leu Pro Ser Asp Cys Leu Arg Asn Ala Gly Trp Thr Ser Arg Asn
65              70              75              80
Phe Pro Phe Thr Gly Gln Pro Ala Ala Ala Pro Pro Arg Leu Gly Pro
      85              90              95
Ala Pro Gly Ala Ala Asp Arg Pro Ser Arg Val Pro Lys Ser Pro Ala
      100              105              110
Leu Ala Gln Lys Leu Gly Gln Pro Arg Asp Pro His Leu Pro Leu Pro
      115              120              125
Ile Ser Pro Leu Ser Gln Pro Pro Pro Ser Pro
      130              135

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<210> 3741
 <211> 562
 <212> DNA
 <213> Homo sapiens

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<400> 3741
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gtcgtgtcca ctgtggggat ccacgtcctg actaaccttg tgttcctaga aatccctcac
120
cggcagatcg gtgcctcctg aatcccaccc aaaattccca ctgggaatgt gttcctgaaa
180
gagctgcccc ggcttgagaa agcctctttt cagaccaaac ttcgtattca aagctcaaaa
240
agaactgcac acaattagga cagtcataca agatgctgcc cctaactctg ccacaatctg
300
cgagaagggg ggcgggggctt ccgaggggcaa agtgcccctg ggaagggatc cgcaggggaa
360
agcttttgaaa ggaccacagc cccagccac gaggggagca agcacgagcc ggggagagag
420
ctctgcgctc gcacacggga ttcattctccg ccgcctctgc ccgtttccag caacacggag
480
ccaggcggaa acagtttctc cagcccatte gcctccccga ctcttctctt cagggcacgg
540
ctgggctgct ttcattcacgc gt
562

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<210> 3742
 <211> 138
 <212> PRT
 <213> Homo sapiens

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<400> 3742
Met Gly Trp Arg Asn Cys Phe Arg Leu Ala Pro Cys Cys Trp Lys Arg
1      5      10      15
Ala Glu Ala Ala Glu Met Asn Pro Val Cys Glu Arg Arg Ala Leu Ser
      20      25      30
Pro Ala Arg Ala Cys Ser Pro Arg Gly Trp Gly Leu Trp Ser Phe Gln
      35      40      45
Ser Cys Ser Leu Arg Ile Pro Ser Gln Gly His Phe Ala Leu Gly Ser
      50      55      60
Pro Ala Ser Leu Leu Ala Asp Cys Gly Arg Ile Arg Gly Ser Ile Leu

```

```

65              70              75              80
Tyr Asp Cys Pro Asn Cys Val Gln Phe Phe Leu Ser Phe Glu Tyr Glu
              85              90              95
Val Trp Ser Glu Lys Arg Leu Ser Gln Ala Trp Ala Ala Leu Ser Gly
              100             105             110
Thr His Ser Gln Trp Glu Phe Trp Val Gly Phe Arg Arg His Arg Ser
              115             120             125
Ala Gly Glu Gly Phe Leu Gly Thr Gln Gly
              130             135

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<210> 3743

<211> 468

<212> DNA

<213> Homo sapiens

<400> 3743

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nntcatgagc cttcttatac gctccatttt ggcaaggcgc tgacaatggc ggaggctgaa
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120
atgatcctgc aactcaatcc cagtgagaac tgcacctgga caatagaaag accagaaaac
180
aaaagcatca gaattatctt ttcctatgtc cagcttgatc cagatggaag ctgtgaaagt
240
gaaaacatta aagtctttga cggaacctcc agcaatgggc ctctgctagg gcaagtctgc
300
agtaaaaacg actatgttcc tgtatttgaa tcatcatcca gtacattgac gtttcaaata
360
gttactgact cagcaagaat tcaaagaact gtctttgtgt tctagtagtt cttatttcct
420
aacatcttta ttccaaagtg tggcgggttac ctggatccct ggaaggat
468

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<210> 3744

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3744

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Xaa His Glu Pro Ser Tyr Lys Leu His Phe Gly Lys Ala Leu Thr Met
1              5              10              15
Ala Glu Ala Glu Gly Asn Ala Ser Cys Thr Val Ser Leu Gly Gly Ala
              20              25              30
Asn Met Ala Glu Thr His Lys Ala Met Ile Leu Gln Leu Asn Pro Ser
              35              40              45
Glu Asn Cys Thr Trp Thr Ile Glu Arg Pro Glu Asn Lys Ser Ile Arg
              50              55              60
Ile Ile Phe Ser Tyr Val Gln Leu Asp Pro Asp Gly Ser Cys Glu Ser
65              70              75              80
Glu Asn Ile Lys Val Phe Asp Gly Thr Ser Ser Asn Gly Pro Leu Leu
              85              90              95
Gly Gln Val Cys Ser Lys Asn Asp Tyr Val Pro Val Phe Glu Ser Ser
              100             105             110
Ser Ser Thr Leu Thr Phe Gln Ile Val Thr Asp Ser Ala Arg Ile Gln

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115
Arg Thr Val Phe Val Phe
130

120

125

<210> 3745
<211> 345
<212> DNA
<213> Homo sapiens

<400> 3745
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60
gacgctgtgg gagaggaaaa cagccacatg tgggctggct gcttggagga gacacatgag
120
ccgtgaacac gtctcccccg gccgctccct ggttccatgc gtgctcgtct tgggcaccac
180
gagaacacag ccatgcagcc cccgatcctg cagccacagc cacggcatcg cctggtcgga
240
tgcagcatct gtcctggacg cctctcgtct tcgggtgccag gcctgccagg ccaagccccg
300
attctcaggg gcggcaggag gtgggaggca cgtttgggag gatcc
345

<210> 3746
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3746
Met Ala Gly Trp Cys Val Tyr Gly Thr Leu Trp Glu Arg Lys Thr Ala
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Thr Cys Gly Leu Ala Ala Trp Arg Arg His Met Ser Arg Glu His Val
20 25 30
Ser Pro Gly Arg Ser Leu Val Pro Cys Val Leu Val Leu Gly Thr Thr
35 40 45
Arg Thr Gln Pro Cys Ser Pro Arg Ser Cys Ser His Ser His Gly Ile
50 55 60
Ala Trp Ser Asp Ala Ala Ser Ala Pro Asp Ala Ser Arg Cys Arg Cys
65 70 75 80
Gln Ala Cys Gln Ala Lys Pro Arg Phe Ser Gly Ala Ala Gly Gly Gly
85 90 95
Arg His Val Trp Ala Asp
100

<210> 3747
<211> 800
<212> DNA
<213> Homo sapiens

<400> 3747
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cgcgccggac cctgggatgc tcttcggccg catcccgtg cgctacgcca tactggtgag
120

aagggggcgc gcccgccac tttctgctg agccccgcac cctctctggt ggtctctct
 180
 ggggcgcccc tgccaatccc cgcttcccc tcccgcagat gcagatgcgc ttcgatggac
 240
 gcctgggctt ccccgcgga ttcgtggaca cgcaggacag aagcctagag gacgggctga
 300
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 360
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 480
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 780
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 800

<210> 3748

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3748

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Asp	Thr	Gln	Asp	Arg	Ser	Leu	Glu	Asp	Gly	Leu	Asn	Arg	Glu	Leu	Arg
		20						25					30		
Glu	Glu	Leu	Gly	Glu	Ala	Ala	Ala	Ala	Phe	Arg	Val	Glu	Arg	Thr	Asp
		35					40					45			
Tyr	Arg	Ser	Ser	His	Val	Gly	Val	Arg	Ala	Thr	Arg	Cys	Gly	Pro	Leu
	50					55					60				
Leu	Cys	Gln	Ala	Ser	Asp	Ala	Arg	Gly	Ala	Val	Gly	Cys	Gly	Gly	Arg
65				70					75					80	
Arg	Asn	Thr	Arg	Gln	Gly	Pro	Arg	Ala	Gly	Gly	Gly	Thr	Ser	Leu	Gly
			85					90					95		
Leu	Cys	Pro	Phe	Pro	Asn	Phe	Leu	Phe	Ser	Gln	Ser	Phe	Leu	Ser	Pro
		100					105					110			
Lys	Lys	Ala	Ser	Leu	Glu	Lys	Ser	Leu	Cys	Pro	Ser	Asp	Leu	Ala	Leu
		115				120						125			
Ser	Pro	Ala	Phe	Leu	Val	Glu	Leu	Gly	Ser						
		130				135									

<210> 3749

<211> 648

<212> DNA

<213> Homo sapiens

<400> 3749
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 60
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<210> 3750
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 <212> PRT
 <213> Homo sapiens

<400> 3750
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 35 40 45
 Ser Thr Ser Lys Gln Met Pro Pro Ser Asp Ala Glu Gly Asp Pro Leu
 50 55 60
 Met Asn Met Leu Met Arg Leu Gln Glu Ala Ala Asn Tyr Ser Ser Pro
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<210> 3751
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<210> 3752

<211> 66

<212> PRT

<213> Homo sapiens

<400> 3752

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Pro	His	His	Gly	Pro	Gly	Pro	Ala	Ala	Ala	Arg	Gly	Ser	Val	Ala	Pro
			20					25					30		
Ser	Gly	Ala	Lys	Gly	Val	Ser	Tyr	Thr	Gln	Gly	Gln	Ser	Pro	Glu	Pro
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<210> 3753

<211> 1426

<212> DNA

<213> Homo sapiens

<400> 3753

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<210> 3754

<211> 261

<212> PRT

<213> Homo sapiens

<400> 3754

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			20					25					30		
Met	Asp	Cys	Arg	Val	His	Met	Arg	Pro	Ile	Gly	Leu	Thr	Trp	Val	Leu
		35					40					45			
Gln	Leu	Thr	Leu	Ala	Trp	Ile	Leu	Leu	Glu	Ala	Cys	Gly	Gly	Ser	Arg
		50				55					60				
Pro	Leu	Gln	Ala	Arg	Ser	Gln	Gln	His	His	Gly	Leu	Ala	Ala	Asp	Leu
		65			70				75					80	
Gly	Lys	Gly	Lys	Leu	His	Leu	Ala	Gly	Pro	Cys	Cys	Pro	Ser	Glu	Met

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Asp	Thr	Thr	Glu	Thr	Ser	Gly	Pro	Gly	Asn	His	Pro	Glu	Arg	Cys	Gly		
100								105				110					
Val	Pro	Ser	Pro	Glu	Cys	Glu	Ser	Phe	Leu	Glu	His	Leu	Gln	Arg	Ala		
115								120				125					
Leu	Arg	Ser	Arg	Phe	Arg	Leu	Arg	Leu	Leu	Gly	Val	Arg	Gln	Ala	Gln		
130								135				140					
Pro	Leu	Cys	Glu	Glu	Leu	Cys	Gln	Ala	Trp	Phe	Ala	Asn	Cys	Glu	Asp		
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Cys	Glu	Pro	Ser	Cys	Leu	Thr	Tyr	Gly	Gln	Thr	Phe	Ala	Asp	Gly	Thr		
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Asp	Leu	Cys	Arg	Ser	Ala	Leu	Gly	His	Ala	Leu	Pro	Val	Ala	Ala	Pro		
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225								230				235					
Pro	Arg	Thr	Ser	Ile	Leu	Asp	Ala	Ala	Gly	Ser	Gly	Ser	Gly	Ser	Gly		
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<210> 3755

<211> 3149

<212> DNA

<213> Homo sapiens

<400> 3755

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<210> 3756

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3756

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			20					25					30		
Ser	Glu	Glu	Thr	Thr	Ser	Asp	Asn	Asn	Asn	Thr	Ser	Ile	Thr	Thr	Pro
			35				40					45			
Thr	Leu	Ser	Pro	Ser	Gln	Gln	Pro	Leu	Pro	Thr	Glu	Leu	Asn	Val	Thr
			50			55					60				
Ser	Pro	Ser	Lys	Glu	Glu	Cys	Gly	Pro	Cys	Thr	Asp	Thr	Ala	His	Val
65				70						75				80	
Ser	Leu	Ile	Thr	Pro	Thr	Lys	Arg	Ser	Cys	Gly	Thr	Asp	Ser	Gln	Ser
			85					90						95	
Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu	Asn	Thr
			100					105					110		
Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg	Arg	Arg
			115				120					125			
Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu	Leu	Gly
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<210> 3757
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<212> DNA
<213> Homo sapiens
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<210> 3758
<211> 199
<212> PRT
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<213> Homo sapiens

<400> 3758

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Gly Lys Ser Gly Leu Leu Thr Ser His Thr Thr Asp Ser Leu Gln Leu
      35           40           45
Trp Phe Val Arg Leu Ala Leu Leu Val Lys Leu Gly Leu Phe Gln Asn
      50           55           60
Ala Glu Met Glu Phe Glu Pro Phe Gly Asn Leu Asp Gln Pro Asp Leu
      65           70           75           80
Tyr Ser Glu Tyr Tyr Pro His Val Tyr Pro Gly Arg Arg Gly Ser Met
      85           90           95
Val Pro Phe Ser Met Arg Ile Leu His Ala Glu Leu Gln Gln Tyr Leu
      100          105          110
Gly Asn Pro Gln Glu Ser Leu Asp Arg Leu His Lys Val Lys Thr Val
      115          120          125
Cys Ser Lys Val Gly Gly Ala Val Ile Leu Pro Cys His Gly Glu Asn
      130          135          140
Met Pro Ser Thr Pro Ser Pro Gln Asp Met Pro Val Leu Phe Pro Ala
      145          150          155          160
Arg Pro Ala Pro Cys Thr Ile Ala Ala Ser Ala Phe Arg Arg Leu Gly
      165          170          175
Asp Pro Gly Leu Cys Gly Leu Val Val Val Ala Leu Ala Glu Ile Phe
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Phe Arg Asp Gly Lys Ser Phe
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<210> 3759

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<212> DNA

<213> Homo sapiens

<400> 3759

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<210> 3760
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 <212> PRT
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 35 40 45
 Pro Gly Pro Ala Ser His Gln Asp Gln Pro Glu Trp Gln Glu Asp Met
 50 55 60
 Gly Arg Thr Gly Gly Gly Gly Cys Gly His Pro Ser Phe Asn Gln Met
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<210> 3761
 <211> 458
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<400> 3761
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 <211> 75
 <212> PRT
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<210> 3763
 <211> 1340
 <212> DNA
 <213> Homo sapiens

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<210> 3764
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 <212> PRT
 <213> Homo sapiens

<400> 3764
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 Asn Gly Gly Ala Ser Glu Ala Gly Glu Asp Arg Glu Ala Pro Gly Lys
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 Phe Tyr Met Glu Lys Gly Thr His Arg Gly Leu Tyr Lys Ser Ile Gln
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 Lys Thr Leu Lys Phe Phe Gln Thr Phe Ala Leu Leu Glu Ile Val His
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 Cys Leu Ile Gly Ile Val Pro Thr Ser Val Ile Val Thr Gly Val Gln
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 Val Ser Ser Arg Ile Phe Met Val Trp Leu Ile Thr His Ser Ile Lys
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 His Leu Pro Tyr Phe Ile Lys Trp Ala Arg Tyr Asn Phe Phe Ile Ile
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 Leu Tyr Pro Val Gly Val Ala Gly Glu Leu Leu Thr Ile Tyr Ala Ala
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 Leu Pro Tyr Val Lys Lys Thr Gly Met Phe Ser Ile Arg Leu Pro Asn
 225 230 235 240
 Lys Tyr Asn Val Ser Phe Asp Tyr Tyr Tyr Phe Leu Leu Ile Thr Met

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<210> 3765

<211> 2764

<212> DNA

<213> Homo sapiens

<400> 3765

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<210> 3766

<211> 464

<212> PRT

<213> Homo sapiens

<400> 3766

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Lys Val Lys Lys Met Gly Leu Gly His Glu Gln Gly Phe Gly Ala Pro
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Cys Leu Lys Cys Lys Glu Lys Cys Glu Gly Phe Glu Leu His Phe Trp
65          70          75          80
Arg Lys Ile Cys Arg Asn Cys Lys Cys Gly Gln Glu Glu His Asp Val
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Leu Leu Ser Asn Glu Glu Asp Arg Lys Val Gly Lys Leu Phe Glu Asp
          100          105          110
Thr Lys Tyr Thr Thr Leu Ile Ala Lys Leu Lys Ser Asp Gly Ile Pro
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Met Tyr Lys Arg Asn Val Met Ile Leu Thr Asn Pro Val Ala Ala Lys
          130          135          140
Lys Asn Val Ser Ile Asn Thr Val Thr Tyr Glu Trp Ala Pro Pro Val
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Gln Asn Gln Ala Leu Ala Arg Gln Tyr Met Gln Met Leu Pro Lys Glu
          165          170          175
Lys Gln Pro Val Ala Gly Ser Glu Gly Ala Gln Tyr Arg Lys Lys Gln
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Leu Ala Lys Gln Leu Pro Ala His Asp Gln Asp Pro Ser Lys Cys His
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Glu Leu Ser Pro Arg Glu Val Lys Glu Met Glu Gln Phe Val Lys Lys
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Tyr Lys Ser Glu Ala Leu Gly Val Gly Asp Val Lys Leu Pro Cys Glu
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Met Asp Ala Gln Gly Pro Lys Gln Met Asn Ile Pro Gly Gly Asp Arg
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Ser Thr Pro Ala Ala Val Gly Ala Met Glu Asp Lys Ser Ala Glu His
          260          265          270
Lys Arg Thr Gln Tyr Ser Cys Tyr Cys Cys Lys Leu Ser Met Lys Glu
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Gly Asp Pro Ala Ile Tyr Ala Glu Arg Ala Gly Tyr Asp Lys Leu Trp
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His Pro Ala Cys Phe Val Cys Ser Thr Cys His Glu Leu Leu Val Asp
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Met Ile Tyr Phe Trp Lys Asn Glu Lys Leu Tyr Cys Gly Arg His Tyr
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Cys Asp Ser Glu Lys Pro Arg Cys Ala Gly Cys Asp Glu Leu Ile Phe
          340          345          350
Ser Asn Glu Tyr Thr Gln Ala Glu Asn Gln Asn Trp His Leu Lys His
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Phe Cys Cys Phe Asp Cys Asp Ser Ile Leu Ala Gly Glu Ile Tyr Val
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Met Val Asn Asp Lys Pro Val Cys Lys Pro Cys Tyr Val Lys Asn His

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<210> 3767

<211> 2439

<212> DNA

<213> Homo sapiens

<400> 3767

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1140

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<211> 379

<212> PRT

<213> Homo sapiens

<400> 3768

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 Lys Leu Gly Leu Phe Gln Asn Ala Glu Met Glu Phe Glu Pro Phe Gly
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 Glu Ile Leu Arg Met Asp Pro Arg Asn Ala Val Ala Asn Asn Asn Ala
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 Leu Glu Ala Met Val Gln Gln Asp Pro Arg His Tyr Leu His Glu Ser
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 Val Leu Phe Asn Leu Thr Thr Met Tyr Glu Leu Glu Ser Ser Arg Ser
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<210> 3769

<211> 1931

<212> DNA

<213> Homo sapiens

<400> 3769

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<211> 447

<212> PRT

<213> Homo sapiens

<400> 3770

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Ser	Ser	Asp	Thr	Ala	Leu	Pro	Pro	Pro	Val	Pro	Pro	Lys	Ser	Glu		205
		195				200										
Ala	Val	Arg	Glu	Glu	Cys	Arg	Leu	Leu	Asn	Ala	Pro	Pro	Val	Pro	Pro	220
		210				215										
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Tyr	Tyr	Ser	Ser	Gly	Leu	His	Asn	Ile	Val	Thr	Lys	Thr	Asp	Thr	Asn	270
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Pro	Ser	Glu	Ser	Thr	Pro	Val	Ser	Cys	Tyr	Pro	Cys	Asn	Arg	Val	Lys	285
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Ser Tyr Pro Arg Gln Lys Thr Pro Gly Thr Pro Lys Arg Asn Cys Pro
      340              345              350
Ala Pro Phe Asp Phe Asp Gly Cys Glu Leu Leu Ala Ser Pro Thr Ser
      355              360              365
Pro Val Thr Ala Glu Phe Ser Ser Ser Val Ser Gly Cys Pro Lys Ser
      370              375              380
Ala Ser Tyr Ser Leu Glu Ser Thr Asp Val Lys Ser Leu Ala Ala Gly
385              390              395              400
Val Thr Lys Gln Ser Thr Ser Cys Pro Ala Leu Pro Pro Arg Ala Pro
      405              410              415
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<210> 3771

<211> 1514

<212> DNA

<213> Homo sapiens

<400> 3771

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Asn Thr Val Gln Glu Lys Thr Phe Asn Lys Asp Thr Val Ile Ile Val
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Ser Glu Pro Ser Glu Asp Glu Glu Ser Gln Gly Leu Pro Thr Met Ala
      145          150          155          160
Arg Arg Asn Asp Asp Ile Ser Glu Leu Glu Asp Leu Ser Glu Leu Glu
      165          170          175
Asp Leu Lys Asp Ala Lys Leu Gln Thr Leu Lys Glu Leu Phe Pro Gln
      180          185          190
Arg Ser Asp Asn Asp Leu Leu Lys Leu Ile Glu Ser Thr Ser Thr Met
      195          200          205
Asp Gly Ala Ile Ala Ala Ala Leu Leu Met Phe Gly Asp Ala Gly Gly
      210          215          220
Gly Pro Arg Lys Arg Lys Leu Ser Ser Ser Ser Glu Pro Tyr Glu Glu
      225          230          235          240
Asp Glu Phe Asn Asp Asp Gln Ser Ile Lys Lys Thr Arg Leu Asp His
      245          250          255
Gly Glu Glu Ser Asn Glu Ser Ala Glu Ser Ser Ser Asn Trp Glu Lys
      260          265          270
Gln Glu Ser Ile Val Leu Lys Leu Gln Lys Glu Phe Pro Asn Phe Asp
      275          280          285
Lys Gln Glu Leu Arg Glu Val Leu Lys Glu His Glu Trp Met Tyr Thr
      290          295          300
Glu Ala Leu Glu Ser Leu Lys Val Phe Ala Glu Asp Gln Asp Met Gln
      305          310          315          320
Tyr Ala Ser Gln Ser Glu Val Pro Asn Gly Lys Glu Val Ser Ser Arg
      325          330          335
Ser Gln Asn Tyr Pro Lys Asn Ala Thr Lys Thr Lys Leu Lys Gln Lys
      340          345          350
Phe Ser Met Lys Ala Gln Asn Gly Phe Asn Lys Lys Arg Lys Lys Asn
      355          360          365
Val Phe Asn Pro Lys Arg Val Val Glu Asp Ser Glu Tyr Asp Ser Gly

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 Tyr Asn Cys Ala Ile Ser Ser Ser Asp Asp Arg Ser Leu Phe Arg Arg
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 675 680 685
 Met Ser Leu Leu Asn Phe Val Met Pro His Met Phe Ser Ser Ser Thr
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 Ser Glu Ile Arg Arg Met Phe Ser Ser Lys Thr Lys Ser Ala Asp Glu
 705 710 715 720
 Gln Ser Ile Tyr Glu Lys Glu Arg Ile Ala His Ala Lys Gln Ile Ile
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 Lys Pro Phe Ile Leu Arg Arg Val Lys Glu Glu Val Leu Lys Gln Leu
 740 745 750
 Pro Pro Lys Lys Asp Arg Ile Glu Leu Cys Ala Met Ser Glu Arg Gln
 755 760 765
 Glu Gln Leu Tyr Leu Gly Leu Phe Asn Arg Leu Lys Lys Ser Ile Asn
 770 775 780
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<210> 3779
<211> 1853
<212> DNA
<213> Homo sapiens
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480
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 1020
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 1080
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<210> 3780

<211> 530

<212> PRT

<213> Homo sapiens

<400> 3780

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Asn Gly Asp Ile Asn Tyr Asp Tyr Val His Glu Leu Ser Leu Glu Met			
35	40	45	
Lys Arg Gln Lys Ile Gln Arg Glu Leu Met Lys Leu Glu Gln Glu Asn			
50	55	60	
Met Glu Lys Arg Glu Glu Ile Ile Ile Lys Lys Glu Val Ser Pro Glu			
65	70	75	80
Val Val Arg Ser Lys Leu Ser Pro Ser Pro Ser Leu Arg Lys Ser Ser			
85	90	95	
Lys Ser Pro Lys Arg Lys Ser Ser Pro Lys Ser Ser Ser Ala Ser Lys			
100	105	110	
Lys Asp Arg Lys Thr Ser Ala Val Ser Ser Pro Leu Leu Asp Gln Gln			
115	120	125	
Arg Asn Ser Lys Thr Asn Gln Ser Lys Lys Lys Gly Pro Arg Thr Pro			
130	135	140	
Ser Pro Pro Pro Pro Ile Pro Glu Asp Ile Ala Leu Gly Lys Lys Tyr			
145	150	155	160
Lys Glu Lys Tyr Lys Val Lys Asp Arg Ile Glu Glu Lys Thr Arg Asp			
165	170	175	
Gly Lys Asp Arg Gly Arg Asp Phe Glu Arg Gln Arg Glu Lys Arg Asp			
180	185	190	
Lys Pro Arg Ser Thr Ser Pro Ala Gly Gln His His Ser Pro Ile Ser			
195	200	205	
Ser Arg His His Ser Ser Ser Ser Gln Ser Gly Ser Ser Ile Gln Arg			
210	215	220	
His Ser Pro Ser Pro Arg Arg Lys Arg Thr Pro Ser Pro Ser Tyr Gln			
225	230	235	240
Arg Thr Leu Thr Pro Pro Leu Arg Arg Ser Ala Ser Pro Tyr Pro Ser			
245	250	255	
His Ser Leu Ser Ser Pro Gln Arg Lys Gln Ser Pro Pro Arg His Arg			
260	265	270	
Ser Pro Met Arg Glu Lys Gly Arg His Asp His Glu Arg Thr Ser Gln			
275	280	285	
Ser His Asp Arg Arg His Glu Gly Arg Glu Asp Thr Arg Gly Lys Arg			
290	295	300	
Asp Arg Glu Lys Asp Ser Arg Glu Glu Arg Glu Tyr Glu Gln Asp Gln			
305	310	315	320
Ser Ser Ser Arg Asp His Arg Asp Asp Arg Glu Pro Arg Asp Gly Arg			
325	330	335	
Asp Arg Arg Asp Ala Arg Asp Thr Arg Asp Arg Arg Glu Leu Arg Asp			
340	345	350	
Ser Arg Asp Met Arg Asp Ser Arg Glu Met Arg Asp Tyr Ser Arg Asp			
355	360	365	
Thr Lys Glu Ser Arg Asp Pro Arg Asp Ser Arg Ser Thr Arg Asp Ala			
370	375	380	
His Asp Tyr Arg Asp Arg Glu Gly Arg Asp Thr His Arg Lys Glu Asp			
385	390	395	400
Thr Tyr Pro Glu Glu Ser Arg Ser Tyr Gly Arg Asn His Leu Arg Glu			
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<211> 1364
<212> DNA
<213> Homo sapiens
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240
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<210> 3782

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3782

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			20					25					30		
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	35					40					45				
Val	Pro	Trp	Thr	Pro	Arg	Phe	Ala	Tyr	Gly	Val	Phe	Tyr	Ala	Asp	Pro
	50				55					60					
Cys	Thr	Gly	Gly	Asp	Ser	Tyr	His	Pro	His	Glu	Gln	Ser	Ser	Pro	Pro
65				70					75					80	
Ile	Phe	Ser	Lys	Gln	Ser	Trp	Ala	Leu	Thr	Pro	Leu	Glu	Arg	Gly	Arg
			85					90					95		
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			100					105					110		

<210> 3783

<211> 4137

<212> DNA

<213> Homo sapiens

<400> 3783

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<210> 3784
 <211> 804
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 His Val Ile Ala Ile Glu Asp Ala Phe Val Asn Ser Gln Glu Trp Thr
 50 55 60
 Leu Ser Arg Ser Val Pro Glu Leu Lys Val Gly Ile Val Gly Asn Leu
 65 70 75 80
 Ala Ser Gly Lys Ser Ala Leu Val His Arg Tyr Leu Thr Gly Thr Tyr
 85 90 95
 Val Gln Glu Glu Ser Pro Glu Gly Gly Arg Phe Lys Lys Glu Ile Val
 100 105 110
 Val Asp Gly Gln Ser Tyr Leu Leu Leu Ile Arg Asp Glu Gly Gly Pro
 115 120 125
 Pro Glu Ala Gln Phe Ala Met Trp Val Asp Ala Val Ile Phe Val Phe
 130 135 140
 Ser Leu Glu Asp Glu Ile Ser Phe Gln Thr Val Tyr His Tyr Tyr Ser
 145 150 155 160
 Arg Met Ala Asn Tyr Arg Asn Thr Ser Glu Ile Pro Leu Val Leu Val
 165 170 175
 Gly Thr Gln Asp Ala Ile Ser Ser Ala Asn Pro Arg Val Ile Asp Asp
 180 185 190
 Ala Arg Ala Arg Lys Leu Ser Asn Asp Leu Lys Arg Cys Thr Tyr Tyr
 195 200 205
 Glu Thr Cys Ala Thr Tyr Gly Leu Asn Val Glu Arg Val Phe Gln Asp
 210 215 220
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 Gly Pro Cys Lys Ser Leu Pro Asn Ser Pro Ser His Ser Ser Val Cys

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<211> 1901
<212> DNA
<213> Homo sapiens
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<211> 168

<212> PRT

<213> Homo sapiens

<400> 3786

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<400> 3788
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<210> 3789

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<212> DNA

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 <212> PRT
 <213> Homo sapiens

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 325 330 335
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 Pro Asn Ser Ser Glu Val Leu Tyr Thr Ser Ala Lys Glu Glu Leu Lys

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Trp Asp Asn Leu Gln Arg Arg Val Thr Ala Val Leu Arg Arg Leu Arg
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His Phe Thr Asn Gln Arg Glu Glu Phe Glu Gly Thr Arg Glu Ser Ile
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Gln Gln Glu Ile Thr Leu Asn Thr Asn Lys Ile Asp Gln Leu Ile Val
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Ile Glu Asp Glu Leu Glu Glu Leu His Arg Tyr Cys Gln Glu Val Phe
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Gly Arg Val Ser Arg Phe His Arg Arg Leu Thr Ser Cys Thr Pro Gly
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Pro Arg Glu Ile Gln Thr Asp Ser Trp Arg Lys Arg Gly Glu Ser Glu
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Gly Ala Phe Asp Arg Trp Glu Met Ile Gln Ala Gln Glu Leu His Asn
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Lys Leu Lys Ile Lys Gln Asn Leu Gln Gln Leu Asn Ser Asp Ile Ser
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<211> 1011

<212> DNA

<213> Homo sapiens

<400> 3791

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<212> PRT

<213> Homo sapiens

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Met	Ala	Glu	Ser	Met	Leu	Ala	Ile	Leu	Cys	His	Ile	Leu	Arg	Gly	Glu
	130				135						140				
Pro	Val	Ile	Arg	Glu	Arg	Leu	Ser	Lys	Glu	Lys	Glu	Gly	Ser	Arg	Gly
145				150					155					160	
Glu	Glu	Asp	Thr	Gly	Gln	Glu	Glu	Gly	Gly	Ser	Arg	Arg	Glu	Pro	Gln
			165					170					175		
Val	Asn	Gln	Gln	Gln	Leu	Gln	Gln	Leu	Met	Asp	Met	Gly	Phe	Thr	Arg

```

                180                185                190
Glu His Ala Met Glu Ala Leu Leu Asn Thr Ser Thr Met Glu Gln Ala
                195                200                205
Thr Glu Tyr Leu Leu Thr His Pro Pro Ile Met Gly Gly Val Val
                210                215                220
Arg Asp Leu Ser Met Ser Glu Glu Asp Gln Met Met Arg Ala Ile Ala
225                230                235                240
Met Ser Leu Gly Gln Asp Ile Pro Met Asp Gln Arg Ala Glu Ser Pro
                245                250                255
Glu Glu Val Ala Cys Arg Lys Glu Glu Glu Glu Arg Lys Ala Arg Glu
                260                265                270
Lys Gln Glu Glu Glu Glu Ala Lys Cys Leu Lys Lys Val Gln Gly Cys
                275                280                285

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<210> 3793
 <211> 360
 <212> DNA
 <213> Homo sapiens

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<400> 3793
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120
tactttgtgc cgggtaggaa caacagtttc tttttttctt ggagacagtg tttcactctt
180
gttgcccagg ctggagggca atggcgcgat ctgagctcac tgcaacctcc gcctttcggg
240
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<210> 3794
 <211> 96
 <212> PRT
 <213> Homo sapiens

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<400> 3794
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Cys Val Phe Ile Phe Gln Ile Thr Gly Arg Phe Leu Gly Leu Cys Tyr
20      25      30
Phe Val Pro Gly Arg Asn Asn Ser Phe Phe Phe Ser Trp Arg Gln Cys
35      40      45
Phe Thr Leu Val Ala Gln Ala Gly Gly Gln Trp Arg Asp Leu Ser Ser
50      55      60
Leu Gln Pro Pro Pro Phe Gly Leu Lys Arg Phe Ser Cys Leu Ser Leu
65      70      75      80
Pro Ser Ser Trp Asp Tyr Arg His Ala Ser Pro Cys Thr Met Pro Asp
85      90      95

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<210> 3795
 <211> 1341

<212> DNA

<213> Homo sapiens

<400> 3795

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120
gagctgcagg cctgtgctga tgtcgtggat cgagaacgct tctgccgctg ggcgggccta
180
cctcgacagg gctttcccat catctttcac ggcgtaatgg gcaaagatga gcgtaagggc
240
aacagcccat ccttcttcaa ccctgaagag gctgccacag tgacttcta cctgaagctg
300
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360
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420
gagcttcgag gactggatga catcaaggac ttgaagggtg gttcagtaga agaattccaa
480
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1341

<210> 3796

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3796

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 Pro Asn Gln Leu Tyr Tyr Glu Gly Glu Leu Gln Ala Cys Ala Asp Val
 35 40 45
 Val Asp Arg Glu Arg Phe Cys Arg Trp Ala Gly Leu Pro Arg Gln Gly
 50 55 60
 Phe Pro Ile Ile Phe His Gly Val Met Gly Lys Asp Glu Arg Glu Gly
 65 70 75 80
 Asn Ser Pro Ser Phe Asn Pro Glu Glu Ala Ala Thr Val Thr Ser
 85 90 95
 Tyr Leu Lys Leu Leu Leu Ala Pro Ser Ser Lys Lys Gly Lys Ala Arg
 100 105 110
 Leu Ser Pro Arg Ser Val Gly Val Ile Ser Pro Tyr Arg Lys Gln Val
 115 120 125
 Glu Lys Ile Arg Tyr Cys Ile Thr Lys Leu Asp Arg Glu Leu Arg Gly
 130 135 140
 Leu Asp Asp Ile Lys Asp Leu Lys Val Gly Ser Val Glu Glu Phe Gln
 145 150 155 160
 Gly Gln Glu Arg Ser Val Ile Leu Ile Ser Thr Val Arg Ser Ser Gln
 165 170 175
 Ser Phe Val Gln Leu Asp Leu Asp Phe Asn Leu Gly Phe Leu Lys Asn
 180 185 190
 Pro Lys Arg Phe Asn Val Ala Val Thr Arg Ala Lys Ala Leu Leu Ile
 195 200 205
 Ile Val Gly Asn Pro Leu Leu Leu Gly His Asp Pro Asp Trp Lys Val
 210 215 220
 Phe Leu Glu Phe Cys Lys Glu Asn Gly Gly Tyr Thr Gly Cys Pro Phe
 225 230 235 240
 Pro Ala Lys Leu Asp Leu Gln Gln Gly Gln Asn Leu Leu Gln Gly Leu
 245 250 255
 Ser Lys Leu Ser Pro Ser Thr Ser Gly Pro His Ser His Asp Tyr Leu
 260 265 270
 Pro Gln Glu Arg Glu Gly Glu Gly Gly Leu Ser Leu Gln Val Glu Pro
 275 280 285
 Glu Trp Arg Asn Glu Leu
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<210> 3797

<211> 1970

<212> DNA

<213> Homo sapiens

<400> 3797

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 180

aagaacttga gcgacatgga gaacgaattc tactatcgct acccaagctt ccaggacgtg
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300
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 1920
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<210> 3798

<211> 473

<212> PRT

<213> Homo sapiens

<400> 3798

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 20 25 30
 His Trp Trp Ser Glu Arg Thr His Lys Asn Leu Ser Asp Met Glu Asn
 35 40 45
 Glu Phe Tyr Tyr Arg Tyr Pro Ser Phe Gln Asp Val His Val Met Val
 50 55 60
 Phe Val Gly Phe Gly Phe Leu Met Thr Phe Leu Gln Arg Tyr Gly Phe
 65 70 75 80
 Ser Ala Val Gly Phe Asn Phe Leu Leu Ala Ala Phe Gly Ile Gln Trp
 85 90 95
 Ala Leu Leu Met Gln Gly Trp Phe His Phe Leu Gln Asp Arg Tyr Ile
 100 105 110
 Val Val Gly Val Glu Asn Leu Ile Asn Ala Asp Phe Cys Val Ala Ser
 115 120 125
 Val Cys Val Ala Phe Gly Ala Val Leu Gly Lys Val Ser Pro Ile Gln
 130 135 140
 Leu Leu Ile Met Thr Phe Phe Gln Val Thr Leu Phe Ala Val Asn Glu
 145 150 155 160
 Phe Ile Leu Leu Asn Leu Leu Lys Val Lys Asp Ala Gly Gly Ser Met
 165 170 175
 Thr Ile His Thr Phe Gly Ala Tyr Phe Gly Leu Thr Val Thr Arg Ile
 180 185 190
 Leu Tyr Arg Arg Asn Leu Glu Gln Ser Lys Glu Arg Gln Asn Ser Val
 195 200 205
 Tyr Gln Ser Asp Leu Phe Ala Met Ile Gly Thr Leu Phe Leu Trp Met
 210 215 220
 Tyr Trp Pro Ser Phe Asn Ser Ala Ile Ser Tyr His Gly Asp Ser Gln
 225 230 235 240
 His Arg Ala Ala Ile Asn Thr Tyr Cys Ser Leu Ala Ala Cys Val Leu
 245 250 255
 Thr Ser Val Ala Ile Ser Ser Ala Leu His Lys Lys Gly Lys Leu Asp
 260 265 270
 Met Val His Ile Gln Asn Ala Thr Leu Ala Gly Gly Val Ala Val Gly
 275 280 285
 Thr Ala Ala Glu Met Met Leu Met Pro Tyr Gly Ala Leu Ile Ile Gly
 290 295 300
 Phe Val Cys Gly Ile Ile Ser Thr Leu Gly Phe Val Tyr Leu Thr Pro
 305 310 315 320
 Phe Leu Glu Ser Arg Leu His Ile Gln Asp Thr Cys Gly Ile Asn Asn

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Leu His Gly Ile Pro Gly Ile Ile Gly Gly Ile Val Gly Ala Val Thr
          340          345          350
Ala Ala Ser Ala Ser Leu Glu Val Tyr Gly Lys Glu Gly Leu Val His
          355          360          365
Ser Phe Asp Phe Gln Gly Phe Asn Gly Asp Trp Thr Ala Arg Thr Gln
          370          375          380
Gly Lys Phe Gln Ile Tyr Gly Leu Leu Val Thr Leu Ala Met Ala Leu
385          390          395          400
Met Gly Gly Ile Ile Val Gly Leu Ile Leu Arg Leu Pro Phe Trp Gly
          405          410          415
Gln Pro Ser Asp Glu Asn Cys Phe Glu Asp Ala Val Tyr Trp Glu Met
          420          425          430
Pro Glu Gly Asn Ser Thr Val Tyr Ile Pro Glu Asp Pro Thr Phe Lys
          435          440          445
Pro Ser Gly Pro Ser Val Pro Ser Val Pro Met Val Ser Pro Leu Pro
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<210> 3799

<211> 210

<212> DNA

<213> Homo sapiens

<400> 3799

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120
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210

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<210> 3800

<211> 70

<212> PRT

<213> Homo sapiens

<400> 3800

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Ser Arg Asn Cys Ser Ala Ser Thr Ser Gln Ala Ser Pro Ser Pro Cys
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          20          25          30
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
          35          40          45
Ser Ser Ser Ser Ser Ser Ser Asp Gly Arg Lys Lys Arg Gly Lys Tyr
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Lys Asp Lys Arg Arg Lys
65          70

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<210> 3801

<211> 4070

<212> DNA

<213> Homo sapiens

<400> 3801
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<210> 3802

<211> 476

<212> PRT

<213> Homo sapiens

<400> 3802

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			20					25					30		
Leu	Trp	Thr	Ala	Ile	Thr	Leu	Phe	Ile	Phe	Leu	Val	Cys	Cys	Gln	Ile
		35				40						45			
Pro	Leu	Phe	Gly	Ile	Met	Ser	Ser	Asp	Ser	Ala	Asp	Pro	Phe	Tyr	Trp
	50				55					60					
Met	Arg	Val	Ile	Leu	Ala	Ser	Asn	Arg	Gly	Thr	Leu	Met	Glu	Leu	Gly
65				70					75					80	
Ile	Ser	Pro	Ile	Val	Thr	Ser	Gly	Leu	Ile	Met	Gln	Leu	Leu	Ala	Gly
			85					90					95		
Ala	Lys	Ile	Ile	Glu	Val	Gly	Asp	Thr	Pro	Lys	Asp	Arg	Ala	Leu	Phe
			100					105					110		
Asn	Gly	Ala	Gln	Lys	Leu	Phe	Gly	Met	Ile	Ile	Thr	Ile	Gly	Gln	Ser

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      115      120      125
Ile Val Tyr Val Met Thr Gly Met Tyr Gly Asp Pro Ser Glu Met Gly
      130      135      140
Ala Gly Ile Cys Leu Leu Ile Ile Ile Gln Leu Phe Val Ala Gly Leu
145      150      155      160
Ile Val Leu Leu Leu Asp Glu Leu Leu Gln Lys Gly Tyr Gly Leu Gly
      165      170      175
Ser Gly Ile Ser Leu Phe Ile Ala Thr Asn Ile Cys Glu Thr Ile Val
      180      185      190
Trp Lys Ala Phe Ser Pro Thr Thr Ile Asn Thr Gly Arg Gly Thr Glu
      195      200      205
Phe Glu Gly Ala Val Ile Ala Leu Phe His Leu Leu Ala Thr Arg Thr
      210      215      220
Asp Lys Val Arg Ala Leu Arg Glu Ala Phe Tyr Arg Gln Asn Leu Pro
225      230      235      240
Asn Leu Met Asn Leu Ile Ala Thr Ile Phe Val Phe Ala Val Val Ile
      245      250      255
Tyr Phe Gln Gly Phe Arg Val Asp Leu Pro Ile Lys Ser Ala Arg Tyr
      260      265      270
Arg Gly Gln Tyr Asn Thr Tyr Pro Ile Lys Leu Phe Tyr Thr Ser Asn
      275      280      285
Ile Pro Ile Ile Leu Gln Ser Ala Leu Val Ser Asn Leu Tyr Val Ile
      290      295      300
Ser Gln Met Leu Ser Ala Arg Phe Ser Gly Asn Phe Leu Val Asn Leu
305      310      315      320
Leu Gly Gln Trp Ser Asp Thr Ser Ser Gly Gly Pro Ala Arg Ala Tyr
      325      330      335
Pro Val Gly Gly Leu Cys Tyr Tyr Leu Ser Pro Pro Glu Ser Phe Gly
      340      345      350
Ser Val Leu Glu Asp Pro Val His Ala Val Val Tyr Ile Val Phe Met
      355      360      365
Leu Gly Ser Cys Ala Phe Phe Ser Lys Thr Trp Ile Glu Val Ser Gly
      370      375      380
Ser Ser Ala Lys Asp Val Ala Lys Gln Leu Lys Glu Gln Gln Met Val
385      390      395      400
Met Arg Gly His Arg Glu Thr Ser Met Val His Glu Leu Asn Arg Tyr
      405      410      415
Ile Pro Thr Ala Ala Ala Phe Gly Gly Leu Cys Ile Gly Ala Leu Ser
      420      425      430
Val Leu Ala Asp Phe Leu Gly Ala Ile Gly Ser Gly Thr Gly Ile Leu
      435      440      445
Leu Ala Val Thr Ile Ile Tyr Gln Tyr Phe Glu Ile Phe Val Lys Glu
      450      455      460
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<210> 3803

<211> 345

<212> DNA

<213> Homo sapiens

<400> 3803

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60

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 120
 aaatatgccc acttgagtga tgagcttcat gtattaattg aagtgtttgc tccacctggg
 180
 gaagcttatt cacgtatgag tcatgcattg gaagagatta aaaaattcct ggttcctgac
 240
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<210> 3804

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3804

Pro	Arg	Gly	Asn	Ser	Leu	Lys	Arg	Leu	Gln	Glu	Glu	Thr	Gly	Ala	Lys
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			20					25					30		
Glu	Leu	Arg	Lys	Ser	Gly	Glu	Ala	Lys	Tyr	Ala	His	Leu	Ser	Asp	Glu
		35					40					45			
Leu	His	Val	Leu	Ile	Glu	Val	Phe	Ala	Pro	Pro	Gly	Glu	Ala	Tyr	Ser
	50					55					60				
Arg	Met	Ser	His	Ala	Leu	Glu	Glu	Ile	Lys	Lys	Phe	Leu	Val	Pro	Asp
65					70					75				80	
Tyr	Asn	Asp	Glu	Ile	Arg	Gln	Glu	Gln	Leu	Arg	Glu	Leu	Ser	Tyr	Leu
			85					90					95		
Asn	Gly	Ser	Glu	Asp	Ser	Gly	Arg	Gly	Arg	Gly	Ile	Arg	Gly	Arg	Gly
			100					105					110		
Ile	Arg	Ile													
			115												

<210> 3805

<211> 1923

<212> DNA

<213> Homo sapiens

<400> 3805

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 180
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tcacagccct accgctggt gcacttcgag cctcacatgc gaccgagacg tcctcatcaa
480
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600
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1920
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1923

<210> 3806

<211> 280
 <212> PRT
 <213> Homo sapiens

<400> 3806
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 35 40 45
 Ala Arg Gln Glu Pro Arg Leu Val Leu Ile Ser Leu Thr Cys Asp Gly
 50 55 60
 Asp Thr Leu Thr Leu Ser Ala Ala Tyr Thr Lys Asp Leu Leu Leu Pro
 65 70 75 80
 Ile Lys Thr Pro Thr Thr Asn Ala Val His Lys Cys Arg Val His Gly
 85 90 95
 Leu Glu Ile Glu Gly Arg Asp Cys Gly Glu Ala Ala Ala Gln Trp Ile
 100 105 110
 Thr Ser Phe Leu Lys Ser Gln Pro Tyr Arg Leu Val His Phe Glu Pro
 115 120 125
 His Met Arg Pro Arg Arg Pro His Gln Ile Ala Asp Leu Phe Arg Pro
 130 135 140
 Lys Asp Gln Ile Ala Tyr Ser Asp Thr Ser Pro Phe Leu Ile Leu Ser
 145 150 155 160
 Glu Ala Ser Leu Ala Asp Leu Asn Ser Arg Leu Glu Lys Lys Val Lys
 165 170 175
 Ala Thr Asn Phe Arg Pro Asn Ile Val Ile Ser Gly Cys Asp Val Tyr
 180 185 190
 Ala Glu Asp Ser Trp Asp Glu Leu Ile Gly Asp Val Glu Leu Lys
 195 200 205
 Arg Val Met Ala Cys Ser Arg Cys Ile Leu Thr Thr Val Asp Pro Asp
 210 215 220
 Thr Gly Val Met Ser Arg Lys Glu Pro Leu Glu Thr Leu Lys Ser Tyr
 225 230 235 240
 Arg Gln Cys Asp Pro Ser Glu Arg Lys Leu Tyr Gly Lys Ser Pro Leu
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 260 265 270
 Asp Pro Val Tyr Leu Leu Gly Gln
 275 280

<210> 3807
 <211> 372
 <212> DNA
 <213> Homo sapiens

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 180

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<210> 3808

<211> 85

<212> PRT

<213> Homo sapiens

<400> 3808

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Arg	Tyr	Pro	Arg	Ala	Val	Ile	Val	Pro	Tyr	Leu	Val	Asp	Asp	Asp	Ala
			20					25				30			
Leu	Ala	Arg	Ser	Ala	Arg	Phe	Arg	Gln	Gly	Gly	Arg	Phe	Pro	Val	Leu
		35				40					45				
Ser	Tyr	His	Pro	Ala	Pro	Ser	Gly	Arg	Gly	Ser	Ala	Pro	Ser	Pro	Arg
	50					55				60					
Ser	Ala	Pro	Gly	Trp	Leu	Arg	Pro	Phe	Trp	Ala	Phe	Ser	Phe	Trp	Pro
65				70					75					80	
Gly	Gln	Phe	Ala	Ala											
				85											

<210> 3809

<211> 1221

<212> DNA

<213> Homo sapiens

<400> 3809

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 180
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 240
 aaaacattcc cagtccttc cctccctccc tagtaccaag gtcctcatct cagttttcat
 300
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 360
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 540
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 600

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 780
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 1221

<210> 3810

<211> 97

<212> PRT

<213> Homo sapiens

<400> 3810

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Ser	Trp	Arg	Ala	Ser	Ser	Asn	Cys	Ser	Arg	Ala	Glu	Pro	Ile	Lys	Glu
			20					25					30		
Phe	Ser	Arg	Lys	Val	Gly	Arg	Pro	Pro	Thr	Pro	Ser	Arg	Arg	Val	Tyr
			35				40					45			
Arg	Gly	Thr	Arg	Thr	Arg	Pro	Ser	Thr	Ser	Ser	Pro	Trp	Ser	Leu	Ala
			50			55					60				
Arg	Val	Ala	Pro	Ala	Ser	Thr	Ala	Asn	Ser	Ser	Ser	Ser	Ser	Asp	Ala
					70					75				80	
Trp	His	Arg	Ser	Ala	Thr	Thr	Arg	Gly	Pro	Asp	Pro	Thr	Trp	Glu	Leu
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Arg

<210> 3811

<211> 296

<212> DNA

<213> Homo sapiens

<400> 3811

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 120

acaccacgcc agatatctgg gcagcagggg catctgacct ggggtgcttg ctggcagcac
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 296

<210> 3812
 <211> 94
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Thr Trp Gly Ala Cys Trp Gln His Cys Leu Asp Ser Arg Ala Ser Leu
 50 55 60
 Gly Pro Pro Pro Asn Pro Ala Arg Glu Arg Leu Lys Ala Cys Pro Pro
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 Cys Trp Ala Trp Val Gly Arg Ser Gly Thr Gly Pro Ser Arg
 85 90

<210> 3813
 <211> 1419
 <212> DNA
 <213> Homo sapiens

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<210> 3814

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3814

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			20					25					30		
Val	Gly	Leu	Trp	Ile	Leu	Asn	Met	Asp	Ser	Leu	Ser	Ala	Arg	Arg	Thr
	35					40					45				
Leu	His	Thr	Phe	Asp	Leu	Leu	Gly	Phe	Gly	Arg	Ser	Ser	Arg	Pro	Ala
	50				55					60					
Phe	Pro	Arg	Asp	Pro	Glu	Gly	Ala	Glu	Asp	Glu	Phe	Val	Thr	Ser	Ile
65					70				75					80	
Glu	Thr	Trp	Arg	Glu	Thr	Met	Gly	Ile	Pro	Ser	Met	Ile	Leu	Leu	Gly
			85					90					95		
His	Ser	Leu	Gly	Gly	Phe	Leu	Ala	Thr	Ser	Tyr	Ser	Ile	Lys	Tyr	Pro
		100					105						110		
Asp	Arg	Val	Lys	His	Leu	Ile	Leu	Val	Asp	Pro	Trp	Gly	Phe	Pro	Leu
		115					120					125			
Arg	Pro	Thr	Asn	Pro	Ser	Glu	Ile	Arg	Ala	Pro	Pro	Ala	Trp	Val	Lys
		130				135					140				
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Phe Lys Arg Lys Phe Ala Asp Phe Phe Glu Asp Asp Thr Ile Ser Glu
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                195                200                205
Lys Ala Met Met Glu Ser Phe Gly Trp Ala Arg Arg Pro Met Leu Glu
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Arg Ile His Leu Ile Arg Lys Asp Val Pro Ile Thr Met Ile Tyr Gly
225                230                235                240
Ser Asp Thr Trp Ile Asp Thr Ser Thr Gly Lys Lys Val Lys Met Gln
                245                250                255
Arg Pro Asp Ser Tyr Val Arg Asp Met Glu Ile Lys Gly Ala Ser His
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<210> 3815

<211> 3669

<212> DNA

<213> Homo sapiens

<400> 3815

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900

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<211> 707

<212> PRT

<213> Homo sapiens

<400> 3816

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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Thr Cys Arg Glu Ala Met Glu Ala Arg Leu Leu Gln Asp Leu Leu
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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 3820

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<211> 5212

<212> DNA

<213> Homo sapiens

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<211> 375

<212> PRT

<213> Homo sapiens

<400> 3822

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<212> PRT

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 3830

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 Glu Asn Thr Pro Phe Val Pro Asp Met Ile Ala Ser Asn Phe Leu His
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 Tyr Lys Val Ser Val Thr Ala Arg Glu Asp Val Pro Thr Phe Gly Pro
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 Pro Leu Pro Ser Pro Pro Val Phe Gln Lys Gly Pro Glu Phe Arg Glu
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<212> DNA

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Ser Thr Asn Ser His Ile Asp Arg Ile Asn Phe Ser Val Lys Met Val
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Ser Ser Ile Leu Gln Ile Pro Lys Leu Ser Tyr Leu Gly Leu Gly Asp
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<211> 361

<212> PRT

<213> Homo sapiens

<400> 3834

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<212> DNA

<213> Homo sapiens

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<210> 3836

<211> 479

<212> PRT

<213> Homo sapiens

<400> 3836

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 Gly Gly Ile Glu Gln Met Gly Leu Ala Met Glu His Gly Gly Ser Tyr

35 40 45
 Ala Arg Ala Gly Gly Ser Ser Arg Gly Cys Trp Tyr Tyr Leu Arg Tyr
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 Phe Phe Leu Phe Val Ser Leu Ile Gln Phe Leu Ile Ile Leu Gly Leu
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 Val Leu Phe Met Val Tyr Gly Asn Val His Val Ser Thr Glu Ser Asn
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 Gly Leu Thr Ala Ser Gln Ser Asn Leu Thr Lys Glu Leu Asn Phe Thr
 115 120 125
 Thr Arg Ala Lys Asp Ala Ile Met Gln Met Trp Leu Asn Ala Arg Arg
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 145 150 155 160
 Val Ile Tyr Thr Asn Asn Gln Arg Tyr Met Ala Ala Ile Ile Leu Ser
 165 170 175
 Glu Lys Gln Cys Arg Asp Gln Phe Lys Asp Met Asn Lys Ser Cys Asp
 180 185 190
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 Ile Ala Lys Glu Lys Thr Ile Cys Thr Lys Asp Lys Glu Ser Val Leu
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 225 230 235 240
 Arg Glu Leu Gln His Gln Glu Arg Gln Leu Ala Lys Glu Gln Leu Gln
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 Lys Val Gln Ala Leu Cys Leu Pro Leu Asp Lys Asp Lys Phe Glu Met
 260 265 270
 Asp Leu Arg Asn Leu Trp Arg Asp Ser Ile Ile Pro Arg Ser Leu Asp
 275 280 285
 Asn Leu Gly Tyr Asn Leu Tyr His Pro Leu Gly Ser Glu Leu Ala Ser
 290 295 300
 Ile Arg Arg Ala Cys Asp His Met Pro Ser Leu Met Ser Ser Lys Val
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 Glu Glu Leu Ala Arg Ser Leu Arg Ala Asp Ile Glu Arg Val Ala Arg
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 385 390 395 400
 Glu Leu Glu Glu Lys Lys Arg Glu Ala Glu Gln Leu Arg Met Glu Leu
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 Ala Ile Arg Asn Ser Ala Leu Asp Thr Cys Ile Lys Thr Lys Ser Gln
 420 425 430
 Pro Met Met Pro Val Ser Arg Pro Met Gly Pro Val Pro Asn Pro Gln
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465

470

475

<210> 3837

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 3837

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 2084

<210> 3838

<211> 468

<212> PRT

<213> Homo sapiens

<400> 3838

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 Ser His Leu Pro Pro Glu His Ser Asp Val Val Ile Val Gly Gly Gly
 35 40 45
 Val Leu Gly Leu Ser Val Ala Tyr Trp Leu Lys Lys Leu Glu Ser Arg
 50 55 60
 Arg Gly Ala Ile Arg Val Leu Val Val Glu Arg Asp His Thr Tyr Ser
 65 70 75 80
 Gln Ala Ser Thr Gly Leu Ser Val Gly Gly Ile Cys Gln Gln Phe Ser
 85 90 95
 Leu Pro Glu Asn Ile Gln Leu Ser Leu Phe Ser Ala Ser Phe Leu Arg
 100 105 110
 Asn Ile Asn Glu Tyr Leu Ala Val Asp Ala Pro Pro Leu Asp Leu
 115 120 125
 Arg Phe Asn Pro Ser Gly Tyr Leu Leu Leu Ala Ser Glu Lys Asp Ala
 130 135 140
 Ala Ala Met Glu Ser Asn Val Lys Val Gln Arg Gln Glu Gly Ala Lys
 145 150 155 160
 Val Ser Leu Met Ser Pro Asp Gln Leu Arg Asn Lys Phe Pro Trp Ile
 165 170 175
 Asn Thr Glu Gly Val Ala Leu Ala Ser Tyr Gly Met Glu Asp Glu Gly

180				185				190							
Trp	Phe	Asp	Pro	Trp	Cys	Leu	Leu	Gln	Gly	Leu	Arg	Arg	Lys	Val	Gln
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Ser	Leu	Gly	Val	Leu	Phe	Cys	Gln	Gly	Glu	Val	Thr	Arg	Phe	Val	Ser
210				215				220							
Ser	Ser	Gln	Arg	Met	Leu	Thr	Thr	Asp	Asp	Lys	Ala	Val	Val	Leu	Lys
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Arg	Ile	His	Glu	Val	His	Val	Lys	Met	Asp	Arg	Ser	Leu	Glu	Tyr	Gln
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Pro	Val	Glu	Cys	Ala	Ile	Val	Ile	Asn	Ala	Ala	Gly	Ala	Trp	Ser	Ala
				260					265						
Gln	Ile	Ala	Ala	Leu	Ala	Gly	Val	Gly	Glu	Gly	Pro	Pro	Gly	Thr	Leu
				275					280						
Gln	Gly	Thr	Lys	Leu	Pro	Val	Glu	Pro	Arg	Lys	Arg	Tyr	Val	Tyr	Val
				290					295						
Trp	His	Cys	Pro	Gln	Gly	Pro	Gly	Leu	Glu	Thr	Pro	Leu	Val	Ala	Asp
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Thr	Ser	Gly	Ala	Tyr	Phe	Arg	Arg	Glu	Gly	Leu	Gly	Ser	Asn	Tyr	Leu
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				340					345						
Glu	Val	Asp	His	Asp	Phe	Phe	Gln	Asp	Lys	Val	Trp	Pro	His	Leu	Ala
				355					360						
Leu	Arg	Val	Pro	Ala	Phe	Glu	Thr	Leu	Lys	Cys	Phe	Val	His	Pro	Gln
				370					375						
Val	Gln	Ser	Ala	Trp	Ala	Gly	Tyr	Tyr	Asp	Tyr	Asn	Thr	Phe	Asp	Gln
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Asn	Gly	Val	Val	Gly	Pro	His	Pro	Leu	Val	Val	Asn	Met	Tyr	Phe	Ala
				405					410						
Thr	Gly	Phe	Ser	Gly	His	Gly	Leu	Gln	Gln	Ala	Pro	Gly	Ile	Gly	Arg
				420					425						
Ala	Val	Ala	Glu	Met	Val	Leu	Lys	Gly	Arg	Phe	Gln	Thr	Ile	Asp	Leu
				435					440						
Ser	Pro	Phe	Leu	Phe	Thr	Arg	Phe	Tyr	Leu	Gly	Glu	Lys	Ile	Gln	Glu
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465															

<210> 3839

<211> 758

<212> DNA

<213> Homo sapiens

<400> 3839

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120

gtccttttca cttatttcca gggagacatt gggtcagtag tggatgaaca cttctcaaga
180

gctttgggcc aagccatcac cctccatcca gaatctgcca tttcaaaaag caagatgggg
240

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300

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<210> 3840

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3840

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Met	Glu	Tyr	Leu	Asn	Ser	Arg	Cys	Val	Leu	Phe	Thr	Tyr	Phe	Gln	Gly
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Asp	Ile	Gly	Ser	Val	Val	Asp	Glu	His	Phe	Ser	Arg	Ala	Leu	Gly	Gln
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Ala	Ile	Thr	Leu	His	Pro	Glu	Ser	Ala	Ile	Ser	Lys	Ser	Lys	Met	Gly
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Leu	Thr	Pro	Leu	Trp	Arg	Asp	Ser	Ser	Ala	Leu	Ser	Ser	Gln	Arg	Asn
			85					90					95		
Ser	Phe	Pro	Thr	Ser	Phe	Trp	Thr	Ser	Ser	Tyr	Gln	Pro	Pro	Pro	Ala
		100						105					110		
Pro	Cys	Leu	Gly	Gly	Val	His	Pro	Asp	Phe	Gln	Val	Thr	Gly	Pro	Pro
		115					120					125			
Gly	Thr	Phe	Ser	Ala	Ala	Asp	Pro	Ser	Pro	Trp	Pro	Gly	His	Asn	Leu
		130				135					140				
His	Gln	Thr	Gly	Pro	Ala	Pro	Pro	Pro	Ala	Val	Ser	Glu	Ser	Trp	Pro
	145				150					155				160	
Tyr	Pro	Leu	Thr	Ser	Gln	Val	Ser	Pro	Ser	Tyr	Ser	His	Met	His	Asp
			165					170					175		
Val	Tyr	Met	Arg	His	His	His	Pro	His	Ala	His	Met	His	His	Arg	His
		180						185					190		
Arg	His	His	His	His	His	His	His	Pro	Pro	Ala	Gly	Ser	Ala	Leu	Asp
		195					200					205			
Pro	Ser	Tyr	Gly	Pro	Leu	Leu	Met	Pro	Ser	Val	His	Ala	Ala	Arg	Ile
		210				215						220			
Pro	Ala	Pro	Gln	Cys	Asp	Ile	Thr	Lys	Thr	Glu	Pro	Thr	Thr	Val	Thr
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245

250

<210> 3841

<211> 367

<212> DNA

<213> Homo sapiens

<400> 3841

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<210> 3842

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3842

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		20						25					30		
Gly	Ala	Ile	Val	Ala	Ala	Met	Gly	Ile	Val	Cys	Phe	Leu	Phe	Leu	Ile
		35				40					45				
Glu	His	Pro	Asn	Asp	Val	Arg	Cys	Ser	Ser	Thr	Leu	Val	Thr	His	Ser
		50				55					60				
Lys	Gly	Tyr	Glu	Asn	Gly	Thr	Asn	Arg	Leu	Ser	Leu	Pro	Lys	Pro	Ile
65				70					75					80	
Leu	Lys	Ser	Glu	Lys	Asn	Lys	Pro	Leu	Asp	Pro	Glu	Met	Gln	Cys	Leu
			85					90						95	
Leu	Leu	Ser	Asp	Gly	Lys	Gly	Ser	Ile	His	Pro	Asn	His	Val	Val	Ile
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Leu	Pro	Gly	Asp	Gly	Gly	Ser	Gly	Pro	Ala						
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<210> 3843

<211> 712

<212> DNA

<213> Homo sapiens

<400> 3843

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<210> 3844
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<212> PRT
<213> Homo sapiens
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<211> 2302
<212> DNA
<213> Homo sapiens
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 2302

<210> 3846

<211> 197

<212> PRT

<213> Homo sapiens

<400> 3846

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 35 40 45
 Gly Ala Ala Ala Gly Ala Cys Gly Pro Ala Arg Cys Ala Asp Gln Gly
 50 55 60
 Gly Ala Arg Glu Arg Gly Gly Arg Gly Gly Ala Gly Gly Gly
 65 70 75 80
 Gly Gly Ala His Gly His Phe Pro Gln Arg Pro Pro Gln Gln Ala Gly
 85 90 95
 Gln Arg Ala Ala Ser Arg Ala Gly Cys Gly His Arg Gln Leu Gln Arg
 100 105 110
 Ala Pro Ala Pro Gly Leu Arg Gln His Pro Cys Gly Ser Gly Thr Glu
 115 120 125
 Gly Leu Arg Gly Gly His Leu Ser Glu Thr Val Cys Ala His Ala Glu
 130 135 140
 Arg Thr Gln Ala Pro Leu Gln Ser Ala Leu Gly Gln Pro Ala Pro Arg
 145 150 155 160
 Pro His Thr Leu Gln Arg His Leu Gly Pro His Ala Thr Gly His Gly
 165 170 175
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180
Cys Cys Phe Pro Gly
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185

190

<210> 3847
<211> 1570
<212> DNA
<213> Homo sapiens

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